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THE MEDICAL RECORD.

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Original Lectures.

LECTURES ON FEVERS.

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(Phonographically reported for THE MEDICAL RECORD.)

LECTURE VII.

TYPHOID FEVER (CONTINUED).—TREATMENT.

GENTLEMEN: We have already considered the antipyretic power of cold applications in the treatment of typhoid fever, and I will now call your attention to the antipyretic power of the sulphate of quinine.

When quinine is employed as an antipyretic, it must be given in large doses; the administration of two grains every two hours, or a larger quantity administered in divided doses within a period of twenty-four hours, will not act as an antipyretic; but thirty or forty grains must be administered within a period of two hours.

If the stomach is irritable, and you fear that a large dose will produce vomiting, ten grains may be given every half hour until the desired quantity has been administered.

Usually from four to six hours after the antipyretic dose has been taken, the fall in temperature will begin, and in about twelve hours it will reach its minimum height; then it will remain stationary from twelve to twenty-four hours. After the temperature has once been reduced by the quinine, its administration may be discontinued until the temperature shall again rise to 105° F. As a rule, the temperature rarely ranges as high as before the quinine was administered.

This mode of administering quinine in antipyretic doses to fever patients rarely produces any symptoms of cinchonism, other than a transient deafness after the first dose. In a large number of cases the temperature can be kept below 103° F. by the sulphate of quinine; but in very severe cases it will be advisable, and sometimes it will be absolutely necessary, to employ not only the quinine, but at the same time the cold baths. My rule is, after I have reduced the temperature to 101° F., or 102° F., by a cold bath, to administer an antipyretic dose of quinine, and thus delay the recurring rise of temperature. While the cold bath more rapidly reduces temperature, the effect of the quinine is more lasting; consequently, by making use of both of these reliable antipyretics during the first two weeks, you will be able to control the temperature during that time. After this period it is not safe to resort to cold baths; but when the temperature rises above 103° F., occasionally you may use the cold pack in connection with antipyretic doses of quinine. If, during the third and fourth weeks, you fail to reduce the temperature by these means, administer during the twenty-four hours from ten to twenty grains of powdered digitalis—unless the pulse is very frequent and irregular—when its use is contraindicated. As an antipyretic, digitalis should be administered only when quinine is given. It seems to increase the antipyretic power of the quinine, but has little or no power when administered alone.

The use of all these antipyretic remedies must be persisted in, until the desired end—the reduction of temperature—is accomplished; but the peculiarities of each patient must be studied, and these agents must be so administered as to suit each individual case.

You cannot trust to the judgment of nurses and attendants, but you must determine for yourself what are the requirements in each case.

The satisfactory results obtained by the systematic use of these remedies justifies their employment; but the exact rules which are to govern one in their use, as to manner and time, can only be determined by experience.

All careful observers are aware that great danger attends prolonged high temperature; but it is still an unsettled question whether this danger is due to parenchymatous changes in the different organs, which some claim are the result of the high temperature, or to disturbance of the nerve centres from the same cause. Whatever may be the final settlement of the question, the beneficial results which follow the antipyretic treatment of fevers are generally admitted; and my advice to each one of you is, at the onset of your professional career to make yourself perfectly familiar with the use of these most important and reliable antipyretics.

If you can keep the temperature of your patient at about 103° F. during the first two weeks of the fever, you have accomplished the *first* and perhaps the most important thing in the treatment of this disease.

Towards the end of the second, or during the third week, sometimes earlier, sometimes later, signs of failure of heart power begin to manifest themselves; the pulse becomes feeble and irregular; at times the surface is cool and moist; the patient complains of a sense of exhaustion, perhaps is unable to turn in bed; the tongue assumes a dry, brown appearance, and the necessity of supporting the patient becomes apparent. This will bring you to the *second* important question in the treatment of this fever, namely, *what means shall be employed to sustain heart power*, or, as it is sometimes said, the vital powers of the patient?

When a patient, during the second or third week of the disease, dies from capillary bronchitis, pulmonary œdema, or suddenly passes into a state of coma, failure of heart power is the real cause of death.

In those cases in which, during the early part of the fever, you have been compelled to resort to a vigorous antipyretic treatment, during the third week, although the temperature may not rise higher than 101° F., the pulse frequently becomes extremely feeble, and reaches 140 per minute, the first sound of the heart becomes inaudible, muscular tremors, dry tongue, and all the phenomena which indicate failure of vital power are present. Under such circumstances the use of stimulants seems to be urgently demanded.

There are a few simple rules which may guide you in the administration of stimulants in this fever.

First.—They should never be administered indiscriminately—that is, never give a patient stimulants simply because he has typhoid fever.

Second.—When there is reasonable doubt as to the propriety of giving or withholding stimulants, it is safer to withhold them, at least until the signs which indicate their use become more marked.

Third.—In every case, but especially when stimulants are not clearly indicated, watch carefully the effect of the first few doses. There are few whose experience in the treatment of typhoid fever is such as to enable them to positively determine, from the appearance of the patient, when the administration of stimulants should be commenced.

Should you commence the administration of stimulants, it is necessary to see your patient every two hours, and note carefully the effect produced. If you find the tongue becoming dry, the patient more restless, the delirium more active, the temperature ranging higher, and the pulse more and more rapid, you may be certain that stimulants are contraindicated. If, on the other hand, the pulse becomes fuller and more regular, if the first sound of the heart is more distinctly heard, or, if it has been absent, it has returned, if the restlessness and delirium is less marked, the tongue more moist, and the patient more intelligent, you may be certain that the time for the administration of stimulants has arrived. When you have commenced their use, it is of the greatest importance that you administer them at stated intervals, especially during the night.

In a severe case of typhoid fever, a free administration of stimulants, just at a critical period (which may not last more than twenty-four hours), will often be followed by a refreshing sleep, and your patient may rapidly pass from an apparently hopeless condition to one of convalescence.

The *third* important thing to be accomplished in the management of typhoid fever patients is the maintenance of nutrition. You must bear in mind that the primary and principal effects of the typhoid poison are manifested in the changes which take place in the lymphatics of the gastro-intestinal tract. Experience has taught us that the enfeeblement of the digestive and assimilative powers, due to these glandular changes, which are manifest from the very commencement of the fever, renders the digestion of solid food impossible, and for a long time it has been the rule of the profession to allow typhoid fever patients only liquid food.

There has been and still is great diversity of opinion in regard to the special articles of diet best suited to this class of patients. Most medical writers and practitioners claim that beef-tea is the proper diet for fever patients; consequently it is the rule to pour into these enfeebled stomachs a decoction of beef in such quantities as a healthy stomach could hardly tolerate, and which, in itself, has little or no nutritive element.

Others claim that gruels are far superior to animal broths, and advocate the feeding of fever patients with gruel made of barley and other farinaceous substances, to the exclusion of every other article of diet; yet gruels furnish few elements essential to the nourishment of a physical organization struggling against a subtle poison, and rapidly wasting with a burning fever, and starvation is the necessary result of a restriction to gruel diet.

There is no disease in which a waste of all the tissues of the body goes on so rapidly as in typhoid fever; and milk is an article of diet which furnishes the elements of nutrition necessary to repair this rapid waste, and there are not the objections to its use which there are against animal broths and gruels. Although there have been, and still are, in some quarters, strong objections against its use as an article of diet in fevers, recently it has been regarded with more favor, and those who have had most extended opportunities for testing its nutritive qualities have come to regard it as the only article of diet required by fever patients. In it we not only find all the elements required for repairing the rapidly wasting tissues, but they are in a condition to be most readily assimilated by the enfeebled digestive apparatus.

In order to make the milk more digestible, it may be diluted with lime-water. The lime-water is an antiseptic, and allays irritability of the stomach and intestines. The quantity of milk is not limited; the patient may take all his stomach will digest—usually patients will take from four to six quarts in the twenty-four hours.

After the patient has passed into the fourth week of the disease, you may find it necessary to administer cream and the yolk of eggs in connection with the milk.

Having considered the three most important things to be accomplished in the management of typhoid fever, I now come to the treatment of the accidents of the disease.

Diarrhœa.—I have told you that diarrhœa is one of the common symptoms of this fever; but it is one of which medical writers have taken special notice, and for the relief of which different means have been employed.

Let us for a moment notice the chain of phenomena of which diarrhœa is a link. The poison which produces this fever unquestionably has a specific action upon the intestinal glands and lymphatics. It is here that we find the characteristic lesions of the disease, and it is scarcely questioned that the typhoid poison, to a great extent, gains entrance to the system through these glands and lymphatics, and here produces its primary irritation. Following the irritation and inflammation of the follicles, other portions of the mucous membrane become involved, and we have a catarrhal inflammation of the mucous membrane of the intestinal tract. The necessary consequence of this is a diarrhœal discharge. Is this diarrhœa to eliminate the fever poison? Certainly not. It is simply an indication that these intestinal changes are going on; it is not due to the elimination of the typhoid fever poison, but to the inflammation which the fever poison has excited in the intestinal glands, and the subsequent intestinal catarrh. When the diarrhœa is present in the earlier period of the disease, it is better to let it alone. The question may be asked, will it not exhaust the patient? During the earlier period of the fever (the first and second week) the danger is very slight. It has been proposed to treat this diarrhœa, which makes its appearance early in the disease, with alkalies, bismuth, pepsin, etc. It is claimed, if these remedies be administered, diarrhœa can be prevented, or, if it already exists, that it can be controlled. Theoretically, I see no reason for employing alkaline remedies, for the diarrhœal discharges are always strongly alkaline, and, from clinical observation, I am convinced that bismuth, pepsin, etc., have little or no effect either in controlling the diarrhœa or in preventing the intestinal changes which produce it. When diarrhœa commences late in the disease (during the latter part of the third, or during the fourth week of the fever), it is of a very different character from that which occurs during the first and second weeks. Ulceration of the intestinal glands, and perhaps sloughing, has been established, and, in addition to the extensive local changes, there is a septic element which enters into the causation of the diarrhœa at this

stage. Besides, the increased peristaltic action of the intestines, which attends the diarrhœa, favors an extension of the inflammatory processes to the peritoneum, especially that portion which covers the intestine, which corresponds to Peyer's patches. In view of these facts, the diarrhœa should be arrested or held in check. For the accomplishment of this, there is but one remedy which can be relied upon—that is opium. My experience is against the use of astringents. If opium will not arrest it, you may expect little aid from astringents combined with opium as they are usually administered.

The use of opium is objected to by some, who claim that it diminishes the power of the heart's action; but in this disease, when administered in small doses, it seems to me to increase rather than diminish the heart-power. It is acknowledged that opium, more than any other drug, arrests the peristaltic action of the intestines; and that is what we wish to accomplish, when diarrhœa is present during the third and fourth week of typhoid fever.

Tympanitis.—You will recollect that the tympanitis, which is sometimes so troublesome a symptom in typhoid fever, is due to gaseous distention of the intestines. Some assert that this gaseous accumulation is due to fermentative processes going on in the intestines; consequently, that the use of antiseptic remedies are indicated, such as muriatic acid, chlorate of potash, pepsin, etc. When this has proved a distressing symptom, I have usually found relief to be obtained by the application of turpentine stupes to the abdomen. Some claim that if turpentine be administered internally, from the beginning to the end of typhoid fever, that tympanitis and the intestinal changes which lead to it and to the diarrhœa are much less severe. I am confident that the turpentine treatment, as it is called, does not have the controlling influence over this fever which has been claimed for it; but I am also certain that it is our most reliable agent for the relief of the tympanitis.

Intestinal Hemorrhage.—Hemorrhage from the bowels in typhoid fever (as I have already stated) is a serious accident, and may cause death by producing a fatal exhaustion.

When it occurs early in the fever, usually it requires no treatment; but when it occurs during the third or fourth week, or after convalescence is apparently fully established, it must be arrested as promptly as possible.

The occurrence of severe intestinal hemorrhages may sometimes be prevented by keeping the patient in bed. A typhoid fever patient should not be allowed to get out of bed from the beginning of the attack until convalescence is fully established. Especially is this of importance if the case is a severe one, and attended by symptoms that indicate extensive intestinal lesions.

When hemorrhage from the intestines does occur during the third or fourth week of the fever, at once semi-narcotize your patient by the administration of opium in small doses at short intervals. Absolute rest of the body must be insisted on, the patient must not be turned on the side or moved in bed, and an ice-bag should be applied over the abdomen. I doubt if any good results can be accomplished by the use of astringents, either by enemata or by the mouth, as it is not known that they even reach the seat of the hemorrhage, although gallic acid and the persulphate of iron are usually recommended in cases of intestinal hemorrhage occurring in typhoid fever. If the hemorrhage is profuse, it may be necessary to keep your patient under the influence of the opium for a week or ten days.

Peritonitis.—When perforation of the intestine occurs, the case may be regarded as hopeless; death takes place usually within twenty-four hours; death occurs as the result of general peritonitis; no plan of treatment avails anything. If the peritonitis occurs without perforation, from the extension of the inflammatory process from the intestinal ulcers to the peritoneum, by bringing your patient rapidly into a state of semi-narcotism and holding him there for five or six days, you may prevent the extension of the peritonitis and save the life of your patient. Such a case you are to treat in every respect as one of localized peritonitis.

After recovery from an intestinal hemorrhage or a localized peritonitis in typhoid fever, be exceedingly careful about the administration of cathartics or enemata; either may jeopardize the life of your patient. The bowels will move spontaneously after a time, even though the use of opium be continued, and no harm will follow should two or three weeks pass without a movement from them.

When the stomach is irritable, the hypodermic injection of morphine is preferable to opium administered by the mouth. This is given to paralyze the peristaltic movement of the intestines.

Bronchitis.—I have already stated that catarrh of the larger bronchial tubes is present in all severe cases of typhoid fever. No special treatment is required for its management; but, if the bronchitis becomes capillary, great relief will be obtained from the application of dry cups to the chest and the internal administration of carbonate of ammonia. Vapor inhalations will also be found of service in severe cases.

Pneumonia.—The pneumonia which complicates typhoid fever in nearly every case is lobular in character. The signs which indicate its occurrence are sudden rise of temperature, increased frequency of respiration, and the physical signs of localized pulmonary consolidation; cough and expectoration are rarely present.

Its occurrence is always an indication that stimulants should be administered. If they are being administered, they should be increased in quantity. To prevent or relieve the hypostatic congestion of other portions of the lung, which frequently accompanies pneumonic development, the heart-power must be increased, and the position of the patient changed.

Laryngitis.—For the relief of the laryngitis which occasionally complicates typhoid fever, a small blister may be applied on either side below the angle of the jaw, and the whole neck enveloped in a poultice. If these measures fail, and suffocation appears imminent, tracheotomy should be resorted to without delay.

Subacute gastric catarrh, occurring as a complication during convalescence from the fever, can only be managed successfully by giving the stomach rest as far as possible, restricting the diet to a single tablespoonful of milk at a time, and applying hot fomentations over the epigastrium.

Bed-sores.—The severer forms of bed-sores are the most intractable complications we have to combat. Fortunately, the severer forms are much less frequently met with under the more recent plan of treatment; and, if they do occur, they are superficial and limited to small spots. Scrupulous cleanliness is one of the principal means for preventing their development. So long as there are no erosions, the parts should be frequently bathed in spirits of camphor, and the points of attack should be relieved from all pressure. If the sores penetrate the integument, they should be frequently washed with a weak solution of carbolic acid, and afterwards covered with lint covered with vasaline.

The most unfavorable cases are those in which the point of pressure caused by the weight of the body becomes gangrenous. In such cases, by some a continuous warm bath is recommended. As soon as sloughing takes place, and the parts separate, they should be dressed with lint saturated with balsam of Peru and carbolic acid.

As has been already stated, diarrhœa is usually present in the early period of this fever; but sometimes there is constipation. The question arises, is the administration of cathartics ever admissible in typhoid fever? If so, what cathartic shall be employed? There is great diversity of opinion upon these points. One recommends the administration of rhubarb, another advises alkaline cathartics, and another would give calomel.

I shall consider these at my next lecture, in connection with the management of convalescence and the sequelæ of this fever.

Original Communications.

NEW MODIFICATIONS OF THE OPHTHALMOSCOPIC MIRROR.

By EDWARD G. LORING, M.D.,

NEW YORK.

Dr. O. F. Wadsworth, of Boston, has recently made an ingenious and what promises to be a useful addition to my ophthalmoscope. This consists of an additional mirror, designed particularly for the use of the upright image and the determination of the errors of refraction. The mirror is circular in shape, and of the same focus as that now ordinarily used. The peculiarity of the mirror is that it is only fifteen millimetres in diameter. The small diameter of the mirror permits it to be set at an angle of twenty degrees, and yet allows the hole in the mirror to be brought close to the glass in the disk. The mirror rotates from right to left, so that either eye can be examined. The disadvantages of this mirror are, that it is so small that sufficient light is not obtained to make an examination by the inverted method, thus necessitating an alternate substitution of two mirrors. To avoid this necessity, I have contrived the following modifications of the ordinary mirror, suggested by Dr. Wadsworth's idea:

The general shape of the mirror is kept as it now is, except that a segment is cut from one side, a straight line having been drawn in a vertical direction about half-way between the centre of the hole and the edge of the mirror. The mirror is then swung on two pins in a vertical direction. When an inclination is needed, the mirror is tilted down into the case, at the side which has been cut away; and, as only ten degrees of pitch within the case is needed, the present case is deep enough. When needed for the inverted image, the mirror can be folded back, or indeed used just as it is. This mirror rotates from right to left. It gives abundant light for either method of examination, and can, if thought advisable, be protected by a case similar to that of Jaeger's mirror.

This modification has been rendered still more simple by cutting off both sides of the present mirror, making in fact a narrow parallelogram sixteen millimetres in width, instead of a circular mirror. This tilts both ways in the case, and does not have to be rotated, and can be used perfectly well for either upright or inverted image. If more light should be needed, it can be obtained by having the segments which have been removed, restored. The mirror would then consist of three parts—a central portion which swings on pivots, and two side portions which remain stationary. Still a further modification towards the same end, and one which is more elegant but more expensive, is to have a small central mirror swung on pivots, surrounded by a concentric stationary mirror. These mirrors can be fitted to any ophthalmoscope. By such an arrangement we do away, in a great degree, with the astigmatism which is produced when strong glasses are used, and when the mirror lies in a plane parallel to that of the correcting glass, as is the case with the ophthalmoscopes now in common use.

These mirrors can be had of Mr. Hunter, optician, 1132 Broadway.

THE STATE OF THE EYELIDS AFTER DEATH—OPEN OR SHUT?

By T. CLARKE MILLER, M.D.,

MASSILLON, OHIO.

In order at once to relieve myself from the burden of a sensational heading, I will explain that my object in this writing is to inquire what importance, if any, is to be attached to the state of the eyelids (open or shut) after death.

In a criminal trial at the present session of the Court of Common Pleas of Stark County, Ohio, at Canton, the county-seat, in the case entitled "The State of Ohio *v.* R——," the State sought to attach importance to the fact in evidence that the eyes of the deceased were *closed* when the body was first seen by witnesses after the tragedy. A part of the theory of the prosecution seems to be that the mortal wound (pistol-shot) was inflicted while the victim was *asleep;* that, as appears in evidence, the wound was from its nature necessarily *immediately fatal;* and that the eye being *found closed*, was evidence that the mortal wound was received *during sleep.*

If this could be made to appear, of course the plea of self-defence must fall to the ground.

It is not my desire to discuss the merits of the case or the value of the evidence, whether as to fact or expert; but I think I may ask the indulgence of your readers while we inquire:

1. Whether the fact of the eyes being found *closed* after death is of any value as evidence that the *wound was inflicted* and *death occurred during sleep?*

2. What determines the *closure* or otherwise of the lids after death?

3. Is the state of the eyelids (open or shut) of *any medico-legal* importance?

1. The writer has seen men shot dead in the army, in battle, during the late war, and has seen after their death that the eyelids were closed; it is not asserted that this was *always* the case—this is not necessary; but it certainly was *sometimes* the case. Having had considerable opportunity for observation in civil life, I do not hesitate to say that in very many cases of "sudden" or "instant" death, whether from violence of a criminal or accidental nature, or from disease, the eyelids will be *closed* after death. In answer then to the first question I feel safe in saying, "that the fact of the eyes being found closed after death is *not* of any value as evidence that the wound was inflicted or that death occurred during sleep," even though it be in evidence that the wound was necessarily *instantly* fatal.

2. In the class of cases already spoken of, *i. e.*, sud-

den or instantaneous deaths, we have already seen that the eyelids are *very frequently* partially or entirely closed (oftener than otherwise) after death; and is not the explanation of this to be sought in the same laws that determine the position of other parts of the body?

If a person receives an instantly fatal hurt the muscles at once lose their tone and contractile power or quality, and the limbs fall into such positions as *gravitation* determines, modified by the surroundings, and, if the body be not disturbed, cadaveric rigidity coming on fixes the body for a time in that position. If the head is in such a position as to *favor*, the lower jaw drops; otherwise, of course, it does *not* drop. The eyelids obey the same law; if the body falls, or is immediately placed on the back, with the head a little elevated, *gravitation favors* the *descent* of the *upper lid* over the eyeball; there is ordinarily nothing to *hinder*, *consequently* the eyelids are *closed*.

On the other hand, if the body falls or is placed on the *face* or on the *back*, with the head *low* or *thrown back*, the eyelids will be found *open* to a greater or less extent. Even in death by hanging, which is in many instances not strictly instantaneous, and in which the constriction of the neck is thought to favor a protrusion, in a greater or less degree, of the ball, the eyelids are *very often* found closed, if in fact this is not *generally* true where the body has remained suspended for some time.

But what ordinary influences, aside from or in defiance of gravitation, may determine the *openness* of the lids after death?

At the approach of death from tedious and exhausting sickness the *senses* of the sufferer become gradually and progressively *blunted;* reflex phenomena cease to manifest themselves; whether the chill finger has touched the nervous *centre* or the peripheral expansion, matters not, the muscles cease to obey even before the will has ceased to command. The eyeball now bears exposure to the air, and the irritation is not responded to by a *reflex* wink: no discomfort is felt, and the lid does not sweep the ball by a *voluntary* effort; the eye becomes "glazed," the secretion is *dried up* so that the *lid* does not slide over it of its own weight; the heart stops, and the rigor of death *fixes* the victim in the expression of limb and feature with which the monstrous victor leaves him.

The second question may then be answered: gravitation and the state of the lubricating secretions of the eyeball are the considerations which "determine the closure or otherwise of the lids after death."

3. The condition of the eyelids after death, taken in connection with the position of other parts of the body, all of which might be included under the name of *cadaveric expression*, will help materially in determining whether or not the body has been moved from the position taken at death or at the time when the muscles began to be rigid.

This part of the subject would bear, and deserves, a degree of elaboration which I will not attempt at present; and will only further say, that it seems evident that the state of the eyelids (open or shut) is or may be of considerable medico-legal value.

Prevention of Fires in Public Buildings.—At a recent conference of the heads of departments in this city it was shown that the responsibility of preventing fires in public buildings rested entirely upon the Department of Public Buildings. That this was not definitely understood before proves how derelict that department has hitherto been in the legitimate discharge of its duties.

Progress of Medical Science.

Disease of the Medulla of the Bones in Pernicious Anæmia.—Prof. Cohnheim, of Breslau, reports the case of a man of thirty-five, who died in the hospital at that place of progressive pernicious anæmia, the disease having presented all its usual features. It was found at the autopsy, among other things, that the medulla of all the bones was intensely red. It contained no fat-cells, but instead of them the so-called cells of the medulla, with colorless and colored corpuscles, comprising the ordinary red blood corpuscles, and also, in great excess, red nucleated corpuscles of various sizes. Nuclei and corpuscles were alike colored, and they were remarkable for their great elasticity and ductility. Similar cells were also found in the blood, and in the liver and spleen. Cohnheim regards this condition of the medulla as closely related to the fatality of the disease, indicating a retrogression to an embryonic state of the medulla, or a formation of the cells mentioned at the expense of the healthy blood corpuscles.—*Virchow's Archiv*, 68, II., 1876.

A New Explanation of Blue Pus.—Dr. Girard supports the views of Ferdoz as to the existence of a blue and a yellow coloring matter in pus—pyocyanin and pyoxanthose—and he declares that the bluish tint is due to an excess of the former. It was observed in the shape of hexagonal crystalline tables, blue needles, groups of crystals, or occasionally dark blue octahedra. Pyoxanthose was also present, generally in a granular crystalline form. The excess of one or the other coloring matter determined the tint of the pus. This is opposed to Lücke's view that the blue color is due to great quantities of organisms resembling vibriones.—*Chir. Centr.-Bl.*, II., 50, 1875; *Schmidt's Jahrb.*, 1876, Bd. 171, No. 9.

Determination of Mercury in the Milk of a Woman During Treatment by Inunction.—Dr. Edward Klink concludes that the failure to find mercury in the milk of a nursing woman who is treated by inunction, is because the quantity of milk examined has been too small. He reports the case of a woman suffering from various syphilitic manifestations, who had twenty-five inunctions of thirty grains of mercurial ointment daily. The child had broad, ulcerated condylomata and glandular swellings. It was given three baths with corrosive sublimate, which were discontinued because they produced diarrhœa. It soon recovered from the syphilis. K. therefore considered that the cause of the child's improvement was to be found in the mercury, supposably contained in the mother's milk. The milk was accordingly submitted to chemical examination in Prof. Tudakowski's laboratory, at Warsaw, the quantity amounting to rather over eleven and a half ounces, taken on fifteen days subsequently to the thirteenth inunction. The presence of mercury was clearly proved.—*Jhrschr. f. Dermatol. u. Syph.*, III., 2, p. 207, 1876; *Schmidt's Jahrb.*, 1876, Bd. 171, No. 9.

Crowding of Public Schools.—The public schools in this city are very much overcrowded, and the water-closets of many of them are in a very filthy condition. We should like to know who are charged with the responsibility of inspecting them?

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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ADULTERATION OF MILK.

THE recent conviction of Shrumpf for selling adulterated milk has been the occasion of much congratulatory comment by the daily press. The case being singled out by a powerful association of milk-dealers to prove the legality of the test used by the Health Board, more than an ordinary interest was excited in the proceedings.

Although the result obtained has been everything to be desired from a sanitary point of view, and although there is a general belief that the verdict of the jury was just, it is, scientifically speaking, at least, a matter of regret that the triumph of the Board was not more complete. Considering the ability of the President of the Board as a practical chemist, and his reputation as an expert, we are not a little surprised to find him basing the strongest arguments of the prosecution upon the value of the lactometer as a test for milk adulteration. The instrument used by the Board was graduated from 1,029, and for convenience of use this point on the scale was marked at 100°, which was considered to be the lowest standard consistent with good milk. This was well enough as far as it went, but there does not seem to be any reason why it should not have been admitted that other means of examination were frequently necessary. There is no doubt that the lactometer is the test for the specific gravity of milk; that water added to pure milk will lower its specific gravity; that milk thus diluted will show by analysis an equivalent excess of water; and that the "commercial milk" as sold in New York, is, as a rule, always above 1,029°, or the equivalent standard of the Health Board 100°. The arguments upon which these statements were made were sufficiently convincing, neither could it be denied that the milk sold by the defendant was not much below the usual lactometric standard.

It is not surprising, under the circumstances, that the defence should strive to prove that the lactometer was not a reliable instrument, and was far inferior to the usual analytical processes. For the accomplishment of such a purpose there was a fine opportunity for the exercise of legal tact and the judicious management of expert testimony. Prof. Doremus and sons, appearing for the defendant, showed without difficulty, first, that the Health Board lactometers did not always correspond; secondly, that the standard adopted by the Board was not absolutely correct, pure milk ranging frequently as low as 92° at ordinary temperature; and thirdly, that cream will of itself lower the specific gravity, the richer varieties of milk being sometimes below the Health Board standard of 100°. Thus much being proven, the conclusion which forced itself for consideration was that the defendant could not be convicted of adulteration on the evidence of the lactometer alone. So skilfully was this point presented to the jury, that, had not the Court ruled that the defendant and not the lactometer was on trial, the case might have assumed an altogether different aspect.

In reviewing the testimony in this case, there are several questions of scientific interest which present themselves, in regard to the best means to be used for the detection of adulteration in milk. Lactometry is perhaps the simplest method under ordinary circumstances, but not trustworthy under extraordinary circumstances. We may accept the standard of the Health Board, and say that for practical purposes it is just; but, considering the wide range of specific gravity (92° to 108°) in pure milk, we are not warranted, scientifically speaking, in being too positive whether a certain specimen contains any extra water or not. In fact, the very awkward admission has to be made that the lactometer can sometimes imitate his Satanic Majesty by ruling both ways at once. For instance, a comparative low specific gravity may show either that the milk is very rich with cream or very poor by adulteration with water. Although it is not likely that dealers will prefer to adulterate with cream, unless, perhaps, when water is very scarce, it is still a fact that milk when fresh has a lower specific gravity than after the cream is skimmed from it.

In view of these facts, we are convinced that the lactometer has not only been dignified with an importance which it does not really deserve, but the almost absolute reliance placed upon it by the Board will, we fear, encourage rather than prevent fraud. If the milk-dealers are satisfied that the lactometer will be the only test for the purity of their milk, it will be policy for them to come as near the Health Board standard as possible. If cream keeps down the specific gravity the milk can be skimmed, and then if the "skimmed milk" marks too high a degree on the lactometer, the requisite amount of water can be added. Although this repeated use of the instrument may give the dealer some trouble at first, a little practice will soon enable him to decide exactly how much water is

necessary to make up for the absence of the cream. When we narrow the test down to the question of specific gravity alone, this is the way that the milkmen will probably answer it for us.

We are informed that no milkman is prosecuted unless his milk marks below 89°, and then a chemical analysis is made. No one can doubt that this standard is low enough to be suspicious, and that an analysis is eminently proper. But we do not see why it should not be proper in all other suspicious cases to use the same extra methods of proving adulteration.

Of course it is quite necessary to have some ready means of detecting adulteration, and more is the pity that the lactometer will not answer this purpose.

It is somewhat strange that the pocket microscope has not been thought of in this connection, a little practice in the use of which would enable any inspector to decide concerning the quality of the milk with a good deal of accuracy.

But, under the best possible chances of conviction of venders of adulterated milk, the Health Board have not yet reached the root of the difficulty. That the milk is adulterated before it gets into the hands of the small dealers, there is no question. In fact, this was so far admitted in this case that the Court charged the jury accordingly. The prevention of this state of affairs by the inspection of milk on its arrival at the depot is so easy, that it is hardly possible to believe that it was ever neglected.

DISSEMINATION OF DISEASES AT FUNERALS.

THERE are not wanting cases either in this country or Europe, to prove the danger of disseminating contagious diseases at funerals. Not long since the Suffolk District Medical Society made some inquiries in reference to this question of dissemination in connection with patients dying of diphtheria, and elicited some very interesting and suggestive facts. The result was the passage of a recommendation, to the effect that funerals of persons who had died of that disease should be private. We are pleased to notice that the Health Board of this city have issued a circular not only advising against public or church funerals of persons dying of diphtheria, but of scarlet fever, measles, and whooping-cough. There does not seem to be any good reason why our health authorities should not only actually forbid such funerals to be held in such places, but that the family of the deceased should be compelled to publish, with the announcement of the death, the particular contagious disease of which the patient had died, so that there should be the least possible danger with strictly private funerals. We have in mind a whole family of children which was sacrificed to scarlet fever by a neglect of this precaution, besides many scattered cases. Such, however, are so much more the rule than the exception, that it becomes almost criminal not to give a suitable warning in advance. In this connection it would be well to consider the possibility of restricting the transportation of the bodies of children dying of these diseases to hearses, rather than permitting the use of carriages for that purpose.

Reviews and Notices of Books.

CONTRIBUTIONS TO REPARATIVE SURGERY. By GURDON BUCK, M.D., Surgeon to the New York and St. Luke's Hospitals. D. Appleton & Co. 1876.

THIS little volume of 237 pages is a record of the author's personal experience in a branch of surgery to which he has devoted himself with extraordinary skill and energy for some years past. The twenty-nine cases, whose histories are here recorded, do not cover the entire ground of reparative surgery; indeed, they may, in a measure, be regarded as unique cases, though they serve well to illustrate the principles which the author advocates in his treatment. To every practical surgeon the results speak for themselves; and as two or more excellent woodcuts accompany each case, showing the condition of the deformity before the operation and the final result, the reader can determine for himself the amount of success that was achieved.

Most of the cuts were executed by Froning, of Vienna, from photographs, and they are certainly very well done. Duplicates of the original photographs have been deposited in the Pathological Museum of the New York Hospital and in the Army Medical Museum, where they may be referred to. Some short but excellent chapters are devoted to general subjects, such as the transplantation of skin; the methods of transferring it; the treatment of raw surfaces left to heal by granulations; sutures, and their management; and methods of operation. The surgeon will find these chapters well worthy his attention, as they abound in excellent points that will prove valuable, especially in difficult cases. The rules for using the pin suture and the pin conductor may in many cases greatly aid the surgeon. The author has evidently aimed at great accuracy of description and the most copious illustration; his style is brief and succinct, and yet easy and pleasant. The book may be regarded as an important contribution to surgical literature, and a monument to the originality, skill, untiring perseverance, and faithful labor of its author.

THE CLIMATE OF JAMAICA, W. I. By JAMES CECIL PHILLIPPO, M.D., L.R.C.S. (Edin.), Member of the Medico-Chirurgical Society of Edinburgh. London: J. & A. Churchill, New Burlington St., 1876.

THIS interesting and valuable brochure of some 80 pages 12mo, includes the following table of contents: The Voyage to Jamaica, Kingston, and the Lowlands; From Kingston to the Mountains; The Climate of Jamaica; Tubercular Disease; The Diseases of Jamaica; The Mineral Springs of Jamaica. All these subjects are well treated, and it will pay the *invalids of our country* to read them, especially the health-seeker who expects to visit Florida or Mexico, or the Pacific Slope of the United States, etc. From our experience we would say, study the "New and Varied Excursion to the Tropics, for Invalids or Tourists," as published by Messrs. Alexandre & Fry, of Broadway, New York; but *do not omit to visit Jamaica* from some convenient port

made accessible by such a line. The truth is, that if our invalids, of whom alone one hundred thousand, not less, visit Florida every season, could only use a bridge to Jamaica, the Governor-General of the British West Indies and other influential parties there would subsidize a connection with the New York, Havana, and Mexican Mail Steamship Line. The passenger is not the freight line, and it is that connection which is to be supported until fairly started. We would recommend to Dr. Phillippo to get more information as to the various steamship and railway lines of the United States, and to consult the letters of our distinguished countryman, E. R. Peaslee, M.D., etc., published in the spring of 1876 in the MEDICAL RECORD, Nos. 285, 286, 287. These, with the circular of Dr. Grant's Sanatorium, or Home for Invalids at Cairo, Egypt, will give some valuable hints, both to the profession as well as to the laity. The climatologist knows the objections to Nice and Mentone, Algiers, Cairo, Egypt, Florida, City of Mexico, Cuba, and all else. We also know, for a winter resort for convalescents, the importance of the easy accessible highlands in the tropics. These are to be found in Jamaica. If the island government could furnish the bridge of *passenger steamers*, how many would cross it! The tourists of the North Atlantic steamers in summer, would only be equalled by such a line *merely for the voyage*, if the accommodations were as good. The wants of the island are first in a comfortable passenger vessel, and second, in a good hotel. Both of these the learned doctor should state how best they are to be provided for.

The climate, or rather *varied climates*, with the choicest fruits, and fine roads, are unequalled in any of the many climates we have visited. If the annexation of St. Domingo would make *a free Cuba*, what would not the reciprocity treaty, with the excellence of all that is connected with Jamaica, not do for *our health*. The description as you ascend with the learned doctor the Blue Ridge Mountains; the song of the birds; the beauty of the flowers; the cascades and creepers; varied foliage; large clumps of bamboos, like huge Prince of Wales' feathers; the early-morning effects of the flowers of logwood and ebony, which exhale a delicious odor: and all that feeling of exhilaration, lightness, and elasticity—call to mind our more than one visit. The "Open-Air Treatment of Consumption" (see Dr. Blake in *British Medical Journal* of June, 1875, or *Pacific Medical Journal*, 1860), can, in Jamaica, be always enjoyed. That the doctor dwells on and justly, as well as the *variety of climates* of the island. The highlands of our noble Hudson are compared at Cornwall-on-the-Hudson to the same climate in the mountains of Jamaica. The meteorological tables speak volumes, especially as to the *mean degree of humidity*. These tables are worth the volume in cost for the shelves of a medical library. The effect of the mountain climate on children, and the prolongation of life are well illustrated. Drs. Parkes and Bennet, Sir James Clark, Wern, Jourdannel, and many others, are well and justly commented on for their works on climatology; but the doctor's concluding paragraph is worthy of all praise, and we cannot but hope that he may favor his nearer neighbors and many friends by an *American edition enlarged*, for he has plenty of material. We will remember his quotation from Anthony Trollope, that he could not "imagine no more healthy climate in the world than that of the mountains around Newcastle, and all that he says of a state of bliss—as it were in a second Eden—a military paradise, in which war is spoken of, and dinners and dancing abound."

DOWELL ON YELLOW FEVER AND MALARIAL DISEASES: Embracing a History of the Epidemics of Yellow Fever in Texas; New Views on its Propagation and Control, Diagnosis and Treatment. By GREENSVILLE DOWELL, M.D., Professor of Surgery in Texas Medical College; Member of American Medical Association; Surgeon to the Medical College Hospital, etc., etc. Philadelphia: Medical Publication Office, 115 South Seventh street. 1876.

DR. DOWELL believes that he can speak with authority concerning yellow fever, from the fact that he has treated over 2,000 cases in hospitals and private practice. After the introduction the author at once gives an account of the symptoms of yellow fever, of which he believes there are three varieties: 1. Malarial fever, usually called malignant, congestive, or bilious, but which is not contagious or transportable, only in persons after infection; does not terminate in pure black vomit, etc. 2. Hepatitis acuta, the yellow fever of all climates; jaundice with or produced by inflammation of liver, spleen, and bowels. What the author means by inflammation of the bowels we are not able to say. 3. Infectious yellow fever; no one has a second attack of this, while they may have either of the other forms. It came from Africa to America, and is an eruptive or exanthematous fever, infectious or contagious from persons and clothes under certain circumstances not yet well known. The fomites cannot live in a temperature above 212° F. nor below 32° F. The cause is not carried in the air to any great extent. Every person is liable to have it, unless protected by a previous attack. Exclusion by quarantine, the author believes to be impossible. Unassisted or not treated, about seventy-five per centum die, while with proper treatment and nursing only about five per cent. of the cases prove fatal. Prophylactic remedies have not been successful, but much can be done in the way of prevention by the adoption of proper sanitary measures. To successful treatment, subordination of the nurse to the doctor is regarded as an absolute necessity. The history of the symptoms of the disease, treatment, etc., is followed by a chapter on quarantine, and then come "illustrative reports," which make up quite a share of the book. These reports are from twenty-five physicians who have had personal experience in connection with this affection. These are supplemented by the author's own experience, which has extended over a period of more than twenty-five years, and with it are incorporated several pages of statistics. The pathology and treatment of dengue is then taken up, and from this the author passes to the consideration of malarial fevers. The book is concluded by a few pages on diarrhœa hemorrhagica, or bloody flux. A chart is attached showing the elevation above sea-level of localities in which yellow fever has appeared since 1668. As a frontispiece we have four chromos from Blair. So much, as a general outline, of the contents of this monograph. As a general criticism, we bring forward the statement that there is an air of looseness, not to say positive blunders, hanging about the book from beginning to end. To particularize, we find at the commencement of the book the announcement, that the black vomit of yellow fever and the pigment of the eye are identical; in the middle portion, the prescriptions have been printed with the symbol for the fluid drachm substituted for that of the fluid ounce; and in the latter portion we find such unsatisfactory expressions as detecting hypertrophy of the spleen by "pressure;" "salivation by iodine while the patient was taking mercury;" "abscess of the spleen with rupture into the stomach, permanent hypertrophy of the spleen and recovery of the

patient;" "curing hiccough of eight days' duration by salivating the patient, thus breaking up the adhesions which had formed between the spleen and diaphragm;" "found at post-mortem the peritoneum highly inflamed and the colon contracted" (in diarrhœa hemorrhagica), etc., etc.

In the Mississippi and Brazos bottoms, the author claims, inflammation of the spleen is of common occurrence; so much so, that scarcely any one lives there from three to five years without having an attack. He also states that in all the cases of typhoid fever, in which he has made autopsies, he has found the spleen enlarged and "rather indurated," even in a child two years old. It is hardly possible for a man who has had twenty-five years' experience in the management of any disease to write concerning it without incorporating in his writings some valuable items, and so it is with regard to this author. But how much more valuable the book should have been!

THE THIRTY-THIRD ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM, UTICA, N.Y., for the year 1875. Albany: Weed, Parsons & Co., Printers, 1876.

THE Report is presented in its usual form (Senate Doc. No. 17), and includes that of the Managers, the Treasurer, and the Superintendent.

In the Superintendent's report considerable space is given to the history of cases with the autopsies and microscopical examination of the brain. It is probably a legitimate inference that the microscopical work was largely if not entirely performed by the special pathologist of the Institution, and yet nowhere in the report has that fact been directly or indirectly acknowledged. If the observations were made by the Superintendent, it would have been policy for him to have held the special pathologist responsible by a graceful acknowledgment, rather than subject himself to the humiliation of presenting such a loop-holed report. As it is, the Superintendent must be held responsible for the value of the observations made upon the cases reported, and all that can be said is that they are only moderately good. There is a promiscuous mingling of gross and microscopical appearances; there is a looseness of statement regarding the changes present in the heart, lungs, liver, kidneys, and other organs that is inexcusable, coming as it does from one who has been placed high among specialists; and there is a familiarity in the use of the word "congestion" that savors more of some dark chamber of which but little more is known than the external appearance of the entrance, than it does of a thorough and scientific understanding. It is to be hoped that the next report will wear the impress of a more thorough scientific investigation; and though no more than three or four cases should be reported, that they will be found to be complete when viewed in the light of all the means afforded the modern investigator.

A CENTURY OF AMERICAN MEDICINE. 1776–1876. 12mo. pp. 366. Philadelphia: H. C. Lea. 1876.

THIS little volume comprises a republication of papers in the American Journal of Medical Sciences, by Drs. Edward H. Clarke and Henry J. Bigelow, of Boston; S. D. Gross, of Philadelphia; T. Gaillard Thomas, of New York; and J. S. Billings, of Washington, D. C. Taken as a whole it presents a very complete and connected review of the progress of medicine during the past century.

"THE INEBRIATES' HOME FOR KINGS COUNTY." Incorporated 1866. Fort Hamilton, New York. Rev. J. WILLETT, Superintendent.

WE have received the circular and the "Living Witnesses" from the Institution established for the treatment and reformation of Inebriates. We are happy to learn that in the Home so many of this poor unfortunate class of persons have been received, and apparently successfully treated. It is claimed that this has certain advantages over other kindred institutions in the way of hospital treatment, classification of patients, and in system and discipline.

A COURSE OF ELEMENTARY PRACTICAL PHYSIOLOGY. By M. FOSTER, M.D., F.R.S. Macmillan & Co., London, 1876; pp. 224.

THIS volume comprises twenty-eight lessons in demonstrative physiology, followed by an appendix upon the use of the microscope. The book commences with directions for the proper dissection of a rabbit or a dog, with methods for preserving their different organs and tissues for later studies. Lessons II. and III. are devoted to demonstrations of the morphology and physical properties of the blood, and of the phenomena which accompany coagulation. Lesson IV. considers cartilage, bone, and teeth; and Lesson V., connective tissue, fibres, etc. After chapters relate to the general properties of nervous tissue, to the structure and action of the heart, to the structure of the lung and the mechanics of respiration, the physiology of the skin and of the other organs of special sense, etc. As practical physiology cannot be studied without the aid of physiology, ample directions are given concerning the use of the microscope, the manipulation of tissues, and the cutting, staining, and preservation of the sections.

This work will prove of great value to the teacher of physiology as an aid to the preparation of an eminently practical course of lectures and demonstrations of elementary experimental physiology. Its chief utility, however, will be to the intelligent student, who, armed with a dissecting-case, a microscope, and the book, will be enabled to pass his summer vacation in a manner at once interesting and profitable.

STUDIES, CHIEFLY CLINICAL, ON THE NON-EMETIC USE OF IPECACUANHA: With a Contribution to the Therapeusis of Cholera. By ALFRED A. WOODHULL, M.D., Assistant-surgeon and Brevet Lieut.-Col. U. S. Army. Philadelphia: J. B. Lippincott & Co. 1876.

THE author of this book has a theory which maintains that ipecacuanha is a stimulant to the sympathetic nervous system, hence its beneficial effects in the treatment of dysentery, acute and chronic, of some of the choleraic forms of intestinal disease, cholera morbus and cholera infantum, of nervous vomitings, of passive hemorrhages, and of intermittent fever. The efficient pathological cause in these diseases is believed to be "loss of nervous control." Put in the form of a syllogism the author's claim stands as follows:

The efficient pathological cause in certain diseases is deficiency of sympathetic nerve influence.

Ipecacuanha stimulates the sympathetic nervous system.

Therefore, those diseases which have for their cause loss of nervous control, or deficiency of sympathetic nerve force, can be cured by ipecac.

In the first place, the author admits (p. 86) that little or nothing is known of the nature of the nervous force; that he is not required to explain its exact mode of operation; and that "by *imagining* the nervous element in a state of unstable equilibrium, whose disturbance constitutes many forms of disease, we are materially aided in the comprehension of some diseases, and of the action of some remedies."

He further admits that vomiting may be the result of either irritation or depression of the nervous sys-

tem, and claims that ipecac is, from its peculiar effect upon the nervous system, especially the sympathetic, adapted to the relief of vomiting, because when it produces emesis, it is a tonic emesis.

Now, out of all this the author has attempted to bring his major and minor premises and draw a conclusion, and it is not absolutely certain but what he has succeeded, thus showing himself to be a most ingenious writer. He claims, however, to prove his propositions by the recital of clinical cases; but the major premise in his argument, according to his own citation, is but little more than an assumption, and we need not, therefore, pursue the phantom farther.

In the cases reported by the author, the drug apparently produced good results. To dysenteric patients the ipecac was administered in ten or twenty grain doses, in pill or suspended in a very small quantity of water; was preceded by about fifteen minutes with ten or fifteen drops of laudanum; and followed, after about the same length of time, by a mustard paste or tincture of iodine over the epigastrium. In cases of intermittent fever the remedy is more commonly given in doses of one grain, three times a day. A purely speculative chapter is given on the effect of ipecac in the treatment of cholera, and need not be noticed farther. In a closing chapter the author hedges with all the skill of a modern politician in answering the possible objection to the acceptance of his theory.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, M.A., M.D., Prof of the Theory and Practice of Medicine, etc., etc. New York: D. Appleton & Co., 1876.

Dr. Bartholow has done much original work, and has given the profession several small books upon materia medica and allied topics, so that naturally his experience as a book-maker is somewhat extended, and the volume before us bears evidence of much thought, is well written, and also clear and attractive.

The author classifies his subject as follows: Part I. Modes in which medicines are introduced into the organism. In this chapter he considers the enepidermic, epidermic, and endermic administration of remedies. Part. II. Those agents used to promote constructive or destructive metamorphosis, those to modify the functions of the nervous system, and finally those to cause some evacuation from the body. Part III. is devoted to the discussion of the topical remedies.

In looking over the volume we are interested in the decided opinions of the author in regard to certain remedies—opinions which are somewhat in opposition to the views of other well-known authorities. On page 169 he expresses himself strongly in favor of iodide of potassium in the later stages of syphilis, in preference to the mercurial iodides. This opinion, we believe, is not held by the more advanced syphilographers, among them Drs. Sturgis, Piffard, and Keyes. We do not agree with him in regard to the value of injections of iodine in goitre where the author has obtained such good results, nor in hypertrophied tonsils. In the latter case tonsillotomy is far preferable to the plan he recommends, and we think more effective and attended with less danger.

His chapters which deal with agents that modify the functions of the nervous system, are perhaps the best ones of the book, and here we see the fruits of experience and study. We must, however, differ from him in some of his views in regard to medical electricity. We can never believe "that electro-physiology has not contributed very greatly to serve as a foundation for electro-therapeutics." We must protest against this statement, for we firmly believe that the only way in which electricity can be beneficially and scientifically employed is with a thorough comprehension of the ground-work of electro-physiology; otherwise we play the rôle of empirics.

We think the author lays too much stress upon phosphide of zinc, a remedy with few virtues. He, however, does discuss several drugs that have hitherto been little known, but are very valuable medicinal agents. One of these is hydrastin, which is an excellent injection in gonorrhœa. Very practical and sensible articles upon mineral springs, alimentation, etc., make the work very readable and useful.

Though Dr. Bartholow's prescriptions are often faulty, so far as their Latin is concerned, and several errors in composition are apparent, there is very little that can be adversely criticised and much to be praised; and in spite of the fact that he has several formidable competitors, we have no doubt the book will have a large sale.

A Course of Practical Instruction in Elementary Biology. By T. H. Huxley, LL.D., and H. N. Martin, B.A. 2d Edition, pp. 279. Macmillan & Co., London and New York. 1876.

This is intended as a laboratory guide to elementary biology, and comprises a good deal of information concerning the lower forms of plant and animal life, together with concise directions that will enable the reader to easily verify all statements which the authors make. Commencing with a description of the peculiarities of the *Torula* or yeast-plant, and its behavior in the presence of reagents, the authors proceed to consider the Protococcus, the amœba, colorless blood-corpuscles, and bacteria. After these they ascend to moulds, stone-worts, ferns, the bean-plant and the bell animalcule. From these again they advance in the life-scale to polypes, mussels, crayfish, and lobsters; and conclude with a very complete anatomical description of that favorite martyr to physiological science—the Frog.

The work is entirely practical, and should be one of the first books read by the student of natural history, and by the student of medicine who desires to rest his later physiological studies upon a sound elementary basis.

On the Treatment of Eczema. By R. W. Taylor, M.D., Physician to Charity Hospital American Clinical Lectures, Vol. II., No. 11. G. P. Putnam's Sons. New York. 1876.

This is a tract of twenty-eight pages upon an extremely important topic. Eczema, comprising as it does at least one-fourth of all the cases of cutaneous disease which come under the notice of the practitioner, is a subject upon which too much cannot be written, provided the writer is a man not only of experience, but one who profits by his experience. The monograph before us, a clinical lecture, chiefly considers the therapeutic aspects of infantile eczema, a subject which heretofore has not received from writers the attention it deserves. Very properly differing from the views of the German school, which considers eczema a purely local affection, and which usually treats the disease by external applications alone, the author pays a good deal of attention to the concomitant constitutional derangements, and recommends the internal use of mercurials, iron, cod-liver oil and arsenic, according to the indications presented by each individual case. He points out, however, the importance of judicious external treatment, but insists that this also must be governed by the stage, aspect, etc., of the eruption, and that a mere routine treatment will give the usual routine, that is, unsatisfactory results. For particulars we must refer the reader to the original, and in so doing recommend its perusal, not only by the student and the general practitioner, but also by the specialist.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 22, 1876.

DR. C. K. BRIDDON, PRESIDENT, IN THE CHAIR.

MORBUS COXARIUS.

DR. LEWIS A. SAYRE presented specimens of morbus coxarius, with the following histories:

Minnie King, æt. 11, Washington, N. Y. Father died several years since; mother living; child always delicate. About eight years ago it was noticed that her knee began to pain her continually, especially when she awoke in the morning; could not touch the ground with the foot. The disease ran the usual course of morbus coxarius in six months. An abscess formed about six years ago over the joint. This was opened and has discharged ever since; several pieces of bone have been discharged, one as large as the top of the thumb. Since this time five other abscesses have formed and opened. On admission, is terribly anæmic; can walk with crutches; six sinuses discharging copiously; limb adducted, flexed, and fixed. Excected Oct. 18, 1876.

Miller, æt. 14. In 1873, after riding on a horse rake, complained of pain in the knee, which was thought to be rheumatism. Was laid up for some time; recovered so as to walk without much pain.

One year after, again injured himself by sitting upon the damp ground when overheated from husking corn. Was then seen by Dr. Olmstead, who diagnosticated morbus coxarius, and applied an extension by weight and pulley; the joint soon became acutely inflamed. Was treated with an extension apparatus, but the disease progressed steadily. In fall of 1875 a large abscess was opened about one inch below the trochanter major. The discharge has continued since that time, and as the probe touched dead bone, and the boy was losing ground, exsection was performed Oct. 19, 1876.

The latter case was the sixty-sixth one of operation of exsection performed by Dr. S.

BACKWARD DISLOCATION OF THE TIBIA—CHRONIC DISEASE OF THE KNEE-JOINT—AMPUTATION.

Dr. Sayre presented a third specimen, consisting of an amputated leg removed from a girl twelve years of age, who had her right knee injured when seven months old, by being twisted in the cradle. Since that time she had suffered from disease of the joint, eventuating in a complete backward dislocation of the tibia and a useless limb. There were several sinuses communicating with the joint. On account of the age of the patient and the retardation of growth which would be occasioned by exsection, Dr. Sayre decided to amputate; Esmarch's bandage was used, and a very small quantity of blood was lost.

TYPHO-MALARIAL FEVER.

DR. LOOMIS presented a specimen taken from a patient of Bellevue Hospital, who was admitted on Nov. 10th, with a very unsatisfactory history. He came on board a steamer at Norfolk with the statement that he had been taken sick three days before. During the passage here he suffered from occasional diarrhœa, with an average temperature of 102, and a few hours before his removal from the vessel he was slightly delirious. At the time of his admission to the hospital he had a mild muttering delirium, an anxious expression of countenance, pupils slightly dilated and insensible to light, rigidity of muscles of the arm, marked rigidity of those of the back of the neck and of the back. This latter condition was so marked that he could be raised from the bed without any bending of the neck. The pulse was 68, temperature 104⅘° F., tongue brown and dry, and abdomen markedly retracted. There was no diarrhœa after admission, and no tenderness of abdomen at any point. There was no vomiting during his stay in the hospital. The next day remained at the same standard, except a slight and temporary reduction as the result of cold applications to the surface. He never complained of any pain in his head. On the third day after admission his temperature at one time was reduced to 102° F. for a number of hours, and after a large dose of bromide of potassium.

The symptoms were such that no positive diagnosis could be made. The rigidity of the muscles, pulse, retraction of the abdomen, and absence of abnormal tenderness and of diarrhœa, favored the supposition that the case was one of cerebro-spinal meningitis. On the contrary, the character of the pulse and temperature were not such as were ordinarily met with in that disease.

From that time (the 14th) the rigidity of the muscles increased, the patient lapsed into a decided typhoid condition, and died on the 17th.

At the autopsy no inflammatory exudations were found, either in the brain or spinal cord—in fact, there were no evidences of cerebro-spinal meningitis; but on examining the intestines, there were found, in the neighborhood of the ilco-cæcal valve, ulcers resembling those of typhoid fever. These differed, however, from the ulcers of typhoid fever in two or three particulars. There was no abrupt rising of the edges of the ulcers, but rather an inversion of them—the apparent result of an undermining of the subjacent mucous membrane. Then again, at different points of the ulcers there was pigmentation, and the ulcers themselves were in different stages of development. In some cases the follicles were simply enlarged, in others there was an extensive removal of tissue, while in others cicatrization had commenced, and in a few this cicatrization was complete. In every respect these changes correspond to those described by Dr. Woodward, of Washington, as the distinctive lesions of typho-malarial fever.

The liver was enlarged, and presented the appearances which are ordinarily met with in malarial fevers. The spleen was enlarged, but not markedly softened. The heart was flabby and soft. The mesenteric glands were slightly enlarged.

In answer to a question from Dr. Heitzmann, Dr. Loomis stated that the disease received its compound name from the fact that it combined the symptoms and lesions of the two fevers.

DR. HEITZMANN, in the absence of the Microscopical Committee, volunteered a description of the microscopical character of the tumor of the breast presented at the last meeting by Dr. Sands. He expressed the opinion that it was a cysto-myxo-sarcoma.

CENTRAL OSTEO-SARCOMA OF FEMUR—LISTER'S ANTISEPTIC METHOD.

DR. L. A. STIMSON presented a tumor of the femur, which he removed by amputation through the middle third of the thigh, at the Presbyterian Hospital, Nov. 21st. The patient was a man thirty-seven years old, of healthy antecedents. He dates his trouble from a fall, received May, 1875, and followed by pain in the knee, lasting until Feb., 1876, when a swelling ap-

peared over the external condyle. This increased rapidly until the time of his admission to the hospital, Nov. 13th, when it was found to measure twenty and a half inches in circumference, and about nine inches in length, occupying mainly the anterior and exterior aspects of the lower half of the thigh. It was firm and resistant to the touch; no fluctuation; bony crepitus just below the surface in places; the skin was normal, but disproportionately warm, and traversed by large veins; no vascular souffle could be detected.

It was removed antiseptically (Lister's method), by the double flap operation.

It has now been divided longitudinally. The surface of section shows the skin, fascia, and muscles covering an encephaloid mass mottled with pink, yellow, and gray, resting on and united with the femur; it is friable, with numerous points of ossification; the inferior and deeper portion is occupied by a mass of spongy bone communicating with the interior of the condyles and the lower part of the shaft, the wall of which has been broken through. The tumor has also broken through the intercondyloid notch and sent a bony column half an inch in diameter, between the crucial ligaments, down to the anterior edge of the articular surface of the tibia. Otherwise, the articulation is unaffected, except at the upper culs-de-sac of the capsule, into which the neoplasm has penetrated from above, imbedding the patella and eroding its articular surface. One or two large isolated plaques of bone lie near the outer surface.

Microscopical examination shows the tumor to be composed of round and pusiform cells (many of them with double nuclei), and of large quantities of myeloplaxes, especially near the points of ossification. It is, therefore, to be classed as a *central osteo-sarcoma* originating in the condyles of the femur.

Dr. Beverley Robinson exhibited mucous polypi of the nose, which he had removed by a wire snare.

COMPOUND FRACTURE OF FOREARM — SECONDARY HEMORRHAGIC EXTRAVASATION—AMPUTATION.

Dr. Finnell presented the bones of the left forearm, taken from a young man aged sixteen years, who had sustained a severe compound fracture by a fall from a scaffold. Dr. Stephen J. Clark saw the patient immediately after the accident, and in company with Dr. Finnell dressed the limb in the usual manner, no untoward symptoms presenting themselves. On the second day after the injury an extravasation of blood occurred in the neighborhood of the elbow-joint, necessitating free incision for the relief of the tension. On the third day this extravasation increased to such an extent that amputation of the arm, just below the shoulder-joint, was necessitated. The patient, however, sank and died within a few hours afterwards. Both radial and ulnar arteries pulsated after the accident, and it was a matter of conjecture whence came the blood which so extensively infiltrated the tissues. The friends of the patient were much dissatisfied at the delay of the operation, maintaining that, had the amputation been performed sooner, life might have been saved. Dr. Finnell maintained that, under the circumstances of the case, the complication could not have been foreseen. Dr. Post concurred in the latter view, and at the same time suggested that the source of the hemorrhage might have been explained by an anomalous distribution of the arteries. In fact, not infrequently an independent artery accompanied the median nerve; such a vessel may have given rise to the extravasation. Dr. Briddon suggested that the only interference possible was the arrest of the hemorrhage.

Dr. Finnell maintained that the search was made, with the result of finding a mere oozing inside of the lips of the wound.

POLYPUS OF RECTUM.

Dr. Lewis Smith presented a polypus of the rectum, which he had removed from a child aged four years, who had been treated by a number of physicians for prolapsus ani. On careful examination the diagnosis was made with perfect ease, and the operation by ligature relieved all the disagreeable symptoms at once.

HYSTERICAL VAGARIES.

Dr. Austin Flint presented some specimens, which were supposed to be entozoa discharged from the mouth of a female.

On motion, Dr. Dalton was invited to examine them and report the results at a future meeting.

SARCOMATOUS TUMOR OF TRAPEZIUS MUSCLE.

Dr. Post presented a tumor removed from the shoulder, and which had been developed in the midst of the fibres of the trapezius muscle. An examination by Dr. Stimson showed it to be a spindle-cell sarcoma.

Dr. Post presented a second specimen, which was a portion of a mammary tumor which he removed by operation from a woman four weeks before. At that time she presented a tumor with ulcerating surfaces and doubtful appearance. The axillary glands were unaffected. Dr. Satterthwaite examined a portion, and pronounced the growth that of adenoma. It was accordingly removed. Since that time Dr. S. examined the specimen more carefully, and found in different portions the commencement of epithelioma. It was quite evident that the tumor, from being at first benign, was becoming malignant.

Dr. Post exhibited a third specimen, consisting of a crushed foot removed by Quimby's amputation. Dr. Post remarked that the method differed from Symes and Pirogoff's method in the fact that it left the tibia and fibula intact. The operation had been performed twice by Dr. Quimby, once by Dr. Gouley, and once by Dr. Buck. The advantages of this operation are, that the end of the tibia is not interfered with, and that the growth of the bone is not arrested. Dr. Post then described the operation in detail.

EXTIRPATION OF RECTUM.

Dr. Briddon presented a specimen of extirpated rectum, with the following history, for which he was indebted to Dr. Wm. Kelley, House Physician to the Hospital Department of the Colored Home.

Eliza Walker, aged forty-five; mulatto; single; housekeeper. Admitted to hospital-service of Dr. Briddon. Mother died of consumption at age of thirty-five; is only child left of nine. Denies venereal. Has been a moderately temperate woman. With some slight exceptions, had been perfectly healthy up to three years ago. About that time commenced to have some pain in the small of her back; as she was not otherwise troubled, she thought nothing of it. Last September she noticed a small, very painful growth near the anus, which continued to grow until it attained the size of a half-dollar; complained also of a continual burning sensation in the rectum, pain in defecation, and frequent desire to urinate. Bowels at no time constipated, blood frequently discharged with stools; considerable tenesmus. About six weeks before admission the outside growth, nature of which is unknown, was removed.

On admission, August 11, 1876, patient's general health appears to be good. Thinks she has lost some

esh during the last six months. No cough; appetite ood; tongue clean; heart and lungs healthy. Uterus somewhat enlarged (sound passing to a depth of hree inches) and freely movable. Through the pos-erior wall of the vagina a slightly indurated and rregular mass can be felt in the rectum. Upon rectal xamination, a slightly prominent, somewhat nodular rowth can be felt completely surrounding the gut and xtending from a short distance above the external phincter upwards about one and a half inches. The pper margin could be easily reached with the index inger and was quite abrupt in outline. The rectum vas freely movable, showing that the surrounding connective tissue was uninvolved. The calibre of the ectum was reduced but little.

September 12th.—Patient re-examined. The mass bove described is noticeably larger, and has extended n an upward direction to extent of nearly an inch, eaching above the internal sphincter about two and half inches. Rectum still movable, and growth con-ined to walls of gut.

November 17th.—Examination to-day reveals, in ad-lition to above-noted points, an enlarged lymphatic gland to patient's left, and just above the morbid mass

Operation was performed November 20th. With the object of preserving the external sphincter, the anal perinæum was split up by an incision, reaching from immediately behind the fourchette to the point of the coccyx; the anterior and posterior divisions of this in-cision were united by carrying the knife along the mucous membrane about one-quarter inch above anal aperture; loops were then passed through the skin-flaps on either side and through the end of the gut; the insertions of the levator were divided by the knife, which was then laid aside, and the deeper connections were severed by the fingers, aided by the handle of the scalpel and the blunt-pointed scissors. This separation was tedious and difficult; it was easy to separate the wall of the vagina from that of the rectum as high as the point where the peritoneum is reflected from one to the other; but the posterior connections high up in the concavity of the sacrum were unyielding, and it was only after considerable traction that the sound intes-tine at that point could be brought down level with the perinæum; as soon as this was accomplished the gut was partially divided in front and attached by suture to the surrounding skin, the further division was made a little at a time, securing bleeding vessels and the gut to the adjacent skin, until the whole was fixed in position by nearly a dozen sutures.

The free surface of the growth was somewhat nodu-lar, grayish pink in color, with points of ulceration, and slight hemorrhages here and there. Upon section the morbid process was found to involve chiefly the mucous membrane, which was much thickened and of purplish color. The muscular coat was considerably hypertrophied, particularly posteriorly; the connective tissue surrounding the rectum was perfectly normal in appearance. In it was found the enlarged lymphatic gland previously felt upon rectal examination. This gland was the size of a large pea and yellowish white in color, and upon section was found to be in a state of cheesy degeneration. A microscopic examination revealed a predominance of cylindrical epithelium, with a marked tendency to the formation of tubuli. The connective tissue was considerably infiltrated with small round cells. The lymphatic gland contained chiefly fatty detritus and tablet of cholesterine.

Diagnosis.—Cylindrical epithelial cancer.

Dr. Satterthwaite, as a member of the Micro-scopical Committee, made a few remarks upon the dis-eased breast presented to the Society at its last meeting, by Dr. Sands. The following is the full report:

The diseased material that occupied the position of the normal gland structure was extremely soft—almost diffluent, of a yellow and red color, and looked like the interior of a gland that had undergone degenera-tion. This softened mass was separated from the sur-rounding tissues by a distinct capsule. At a few points no softening had taken place, and at two of them small nodules were found lying loosely attached in capsules. One of these nodules was lobulated, some of these lobules being covered with smaller growths. The other was exceedingly vascular, and of a pale pinkish color. Microscopically the last-named mass was found to be composed of a network of large vessels with delicate walls, and between them was an abundance of extravasated blood, with dense collec-tions of lymphoid corpuscles in the immediate proxim-ity of the vessels. The vessels themselves were densely packed, either with blood corpuscles or granular mat-ter. In another portion of the diseased growth the vessels were not very numerous, and the tissue was composed almost wholly of bodies like the lymphoid elements, separated from one another by a definite amount of intercellular substance. These qualities are such as would justify its being classed under the sar-comata; the two nodules were probably growths which had taken place inwards from the walls of cysts that had existed in an early period in the history of the disease. The fluid was gradually displaced by the growths. Such formations are not uncommon in sarco-mata and adenomata, and probably the nature of their origin in each instance is about the same. It seems to be doubtful if we are prepared to distinguish, in a clin-ical point of view, these sarcomata from adenomata, even when they have a comparatively pure histological character. It is not impossible that the theory of Dr. Hodgkins holds as well with reference to the great mass of the tumor as with reference to the smaller, lightly attached nodules. It may in this light have also originated from a cyst-wall, and, growing out-wards, displacing the fluid, have united itself to the cyst-wall. The normal tissue of the gland may then have become compressed and obliterated. The prog-nosis is usually regarded as good.

EPITHELIOMA OF THE LARYNX.

Dr. Satterthwaite also reported that the scrapings from the laryngeal growths, presented by Dr. Beverley Robinson at the last meeting of the Society, gave evi-dences of epithelioma, as the surface was densely coated with epithelium, and there were the collections of epi-thelial bodies in nets, which are regarded as typical of epithelioma.

Louisville Medical College.—A student of the Louisville Medical College has sued that institution for the amount of the fees paid for that part of the session which he has not attended. The substance of the complaint is that the Louisville Medical College is not a first-class institution, that its curriculum of studies does not embrace the requisite number of branches, that the instruction is insufficient, that the college is not legally organized, and that he was in-duced to enter the school under fraudulent repre-sentations and promises. It will be recollected that this is one of the institutions by means of which the short-term system obtained such an unenviable noto-riety. The affairs of the school have given rise to a good deal of censure, and now that they are the subject of legal inquiry, the truth or falsity of the various statements will doubtless be fully set forth.

Correspondence.

LISTER'S ANTISEPTIC METHOD IN OVARIOTOMY.

The following letter, addressed to Dr. J. Marion Sims, will sufficiently explain itself:

St. Joseph, Mo., Dec. 19, 1876.

Dr. J. Marion Sims.—*Dear Sir:*—On the 7th October last I performed my second ovariotomy. Being favorably impressed with "Lister's antiseptic method," I determined to use it, as far as practicable, with the rude appliances at hand, using an ordinary Richardson spray-producer. The atmosphere of the room was thoroughly carbolized, and the same plan carried out in operating as you describe in your case.

The patient was forty-two years old. The tumor multilocular; left ovary without adhesions; small pedicle; and weighed twenty-four pounds. My patient recovered rapidly, and returned home well the fifth week after operation.

Until I saw your article in the Record of the 9th December, I supposed that others had already adopted the antiseptic method, not regarding myself as a pioneer.

Believe me, dear Dr. Sims, most truly yours,

J. M. Richmond, M.D.

To the Editor of The Medical Record.

Dear Sir:—In a previous issue of the Record, Dr. Sims, in an article on *Lister's Method in Ovariotomy*, says he has "often wondered why it had not been used in ovariotomy," and from his remarks would seem to claim priority in the use of Lister's method in that operation.

I would state that three years ago, in an ovariotomy, I began the use of Mr. Lister's spray-producer—one constructed by Gardner, of Edinburgh, containing a two per cent. solution of carbolic acid, but from a stopping of the instrument could not continue the spray until the completion of the operation; but the after-care of the wound was in conformity with Lister's ideas. The patient made a good recovery, and at no time showed any marked febrile excitement; pulse never above one hundred.

Eleven weeks after the operation, after taking a long ride from the country, where she had been for a visit, she was suddenly attacked with acute diarrhœa and died two days following.

Nearly a year ago, in performing an ovariotomy, I made use of Lister's method, using great care to observe the minutest details in every way.

This case proved fatal the fifth day, but there was no symptom of abdominal disturbance or tenderness; patient died from continuous vomiting.

In 1867 I witnessed some of Mr. Lister's first experiments in antiseptic surgery at the Glasgow Infirmary; later I have seen the more perfect working of his great discovery at the Royal Infirmary in Edinburgh. From the first I could but think favorably of the method, and practised it to the best of my knowledge in the extensive surgical practice that came to my hand while physician to the Eastern Turkey Mission.

Later, as I became more fully acquainted with the mode and materials used, learned the necessity of the greatest care in following every detail and seeing the admirable results, the freedom of wounds from pus, the little constitutional disturbance, the absence of inflammation in surrounding parts—even the very border of a wound, perhaps the flap of an amputation not tinted half an inch from the edge, I could but have faith in it, and consider it suitable and necessary in every surgical operation where an opening was made in the tissues. As I found that wounds penetrating the joints—though an escape of synovial fluid continued for some time—kindly healed, that in fact a joint could be opened with perfect impunity, and no danger of pus need be apprehended or of an anchylosis following, I became enamored with it, and for the last four years have practised it with the greatest satisfaction in nearly every surgical case that has fallen to my hand, fully believing that Joseph Lister has made the great advance of the century in surgery, and that if we are to see immediately great improvements in this science, it will be in the means employed and the manner we care for our surgical wounds.

James Andrew Milne.

Oswego, 16th Dec., 1876.

FRACTURE DRESSING.

To the Editor of The Medical Record.

I desire to call the attention of the medical profession to a fracture dressing which, as I conceive, fulfils all the indications sought in treating broken bones, being a perfect retainer.

The dressing consists of plaster-of Paris splints, retained by adhesive plasters and a roller bandage.

To illustrate, we take a simple fracture of both bones of the leg (tibia and fibula) near the middle third, cut two strips of good adhesive plaster, in width one-third of the limb's circumference, and twelve to fifteen inches long, warm and adjust each to the lateral sides of the limb from the fractured point down smoothly over the malleoli, retaining them in place by a roller bandage. The fracture being properly adjusted, can be so retained by weight and pulley, the compound pulley or any other force attached to the distal ends of the adhesive straps, the body being fixed.

The whole leg is now put up snugly in a roller bandage from the foot to the knee, the plaster-of-Paris splints are next adjusted to each lateral side, and over all a second roller-bandage is carried, securing snugly and smoothly to the limb the now plastic splints.

The splints are made of strips of cotton flannel, in width one-third the limb's circumference, and in length from the foot to the knee. Each strip is rolled in dry plaster-of-Paris, and when properly rolled and wet is ready for adjustment, as above stated. I use from three to eight of these strips on each lateral side, according to the development of the limb and the character of the fracture.

The plaster soon sets, or becomes hard, and a perfect moulded splint is obtained. In readjusting the splint or splints, bare the limb of all dressing except the adhesive strips used as an attachment for the extending force. Cut two more strips of adhesive plaster, two to three inches wide, and twice the length of the splints, fold each lengthwise upon itself, having the adhesive side out; when folded each strip of plaster is one to one and a half inches wide. These folded strips are warmed and fitted to the inside of each lateral splint lengthwise, and the splints returned to their places as when moulded on the limb. That part of the folded adhesive plaster which extend beyond the ends of the readjusted splints is turned back on the outside of the

plints and the whole secured by a roller bandage. ut off the extending straps close to the foot, and the ressing is completed.

I use the above dressing in fractures of all the long ones, not excepting the clavicle, and think it an improvement on Dr. L. Sayre's adhesive-plaster dressing n fractures of the clavicle. Yet I am indebted to r. Sayre for the above idea, although I am not aware e or any one else has used the two plasters, plaster-f-Paris and adhesive plaster, in conjunction, as I have ated above, in cases of fractures, prior to myself.

CHAS. E. BEARDSLEY, M.D.

OTTAWA, Ohio.

CINCHO-QUININE.

TO THE EDITOR OF THE MEDICAL RECORD.

MY DEAR SIR:—Dr. Forest's interesting letter in ie RECORD of to-day induces me to again direct ttention to the merits of a new preparation of Peruvian bark, which, although it has been before the rofession some seven years, may not have received rom the fraternity that recognition to which, in virue of its many good qualities, it is unquestionably ntitled. I refer to cincho-quinine.

Careful analysis proves it a quadruple compound, ontaining *quinia*, *quinidia*, *cinchonia*, and cinchoidia, so that nothing is needed, save clinical evidence, o prove that it possesses in large degree the valuable roperties of the universally used cinchona.

The tenor of Dr. F.'s communication is mainly the bsence of usual cinchonal manifestations as a result f combining the time-honored sulphate with hydrobromic acid—an excellent want, undoubtedly—nd it is *this very virtue* which is so strikingly prominent in cincho-quinine. It *does not produce cinchonism* in the ordinary acceptation of that term, innitus aurium, vertigo, etc., but its specific effects re manifested in a peculiar *visual* derangement, varying from slight blurring to complete diplopia. In ome sensitive patients fifteen or twenty grains will uffice to produce the latter symptom, while one-ourth that quantity will occasionally give rise to decided cloudiness of vision. Whether these results—which are transient and may be regarded as conclusive evidence of its constitutional action, and when ully pronounced, just as effective, therapeutically as s genuine quininism—are due to any change in the ervous or vascular condition of the retina, to a direct action on the origin of the optic nerve, or to general effect on the cerebrum, is for some competent physiologist or ophthalmologist to determine.

It has, too, other advantages. It is much more unikely to get up gastric disturbance; the constitutional effects are less objectionable; it is comparatively tasteless; and lastly, but far from least, the tem of *cost* alone is a strongly marked point in its favor, the present price of the sulphate being three ollars and ten cents per ounce at wholesale, while hat of cincho-quinine is only one dollar and seventy-ive cents. The dose is the same.

As an antiperiodic I have employed it almost exclusively for years, and with the greatest satisfaction, having met but a single instance of intermittent disorder which it failed to control. That exception was the most obstinate case of periodical fever I ever encountered; contracted in New Mexico, of four years' duration, rebellious to quinine to the extent of deafness, blindness, and convulsions—not given by myself, however—and which, under the influence of full doses of Fowler's solution, was so held in abeyance that I began to indulge in felicitations regarding a cure, when, on the *fortieth* day, the chill reappeared and patient passed from under my observation. Whether the poor fellow afterwards resorted to that heroic specific—a bullet through the brain—I have not to say. As a *tonic* my experience has not been sufficient to warrant me in advancing a positive opinion, though testimony is not wanting, from other sources, to show that it suffers nothing by comparison with the sulphate in this regard. But as an antiperiodic I speak whereof I know.

Yours very cordially,

J. B. MATTISON.

151 STATE STREET, BROOKLYN, Dec. 23, 1876.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending December 30, 1876.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Dec. 23.....	0	7	55	2	4	41	0
" 30.....	0	7	66	4	6	46	0

THE LATE DR. GEO. WILKES.—At a stated meeting of the New York Academy of Medicine, held on Thursday evening, Dec. 21, 1876, a committee, consisting of Drs. Austin Flint, C. R. Bogert, and F. A. Burrall, presented the following resolutions, which were unanimously adopted:

Resolved, That the departure from this life of the late George Wilkes, M.D., is a loss to the Academy of a valued Fellow; to the medical profession, of a member distinguished for his attainments, his urbanity, and strict sense of honor in all his professional relations; to his patients, of an able, faithful, and sympathizing physician; and to society, of one who exemplified the characteristics of the true gentleman.

Resolved, That the Secretary of the Academy be instructed to convey to the family of the deceased an expression of profound sympathy for the great calamity which they have sustained in the loss of an honored and devoted father and brother.

S. S. PURPLE, M.D., President.

W. T. WHITE, M.D., Secretary.

THE LATE DR. J. S. THEBAUD.—At a stated meeting of the New York Academy of Medicine, held on Thursday evening, Dec. 21, 1876, a committee, consisting of Drs. J. B. Reynolds and T. C. Finnell, presented the following resolutions, which were unanimously adopted:

Whereas, It has pleased an all-wise Providence to remove from his sphere of usefulness, and in the prime of his manhood, our late associate member, Dr. Julius S. Thebaud.

Resolved, That the members of the New York Academy of Medicine deeply mourn his premature and very sad death.

Resolved, That the Academy deplore the loss of a highly esteemed member, a distinguished surgeon, and a man whose generous qualities endeared him not only to his professional brethren, but especially to patients and friends.

Resolved, That we tender our deepest sympathies to his bereaved family in their great affliction.

Resolved, That these resolutions be published in the medical journals of this city, and that a copy of them be transmitted to the family of the deceased.

S. S. PURPLE, M.D., President.

W. T. WHITE, M.D., Secretary.

EYE INFIRMARY IN JAPAN.—On the 20th of November, the Tokio Eye Infirmary was opened by Dr. D. B. Simmons. It is a two-storied brick building, and contains a dispensary and consulting-room, besides permanent accommodations for twelve patients. This is the first and only institution of the kind in Japan. In the evening a dinner was given in honor of the occasion. About forty persons were present at the dedication, and addresses were made by Dr. Simmons and Mr. Kuki, vice-minister of Education.

HYDROPHOBIA IN THE HORSE.—A horse recently died of hydrophobia in this city.

DR. L. R. LONGWORTH retires from the editorship of the Cincinnati *Clinic*. During his connection with that journal he has made it one of the sprightliest of its kind in the country, and now that he feels his work is done, we congratulate him upon the assumption of more congenial labors.

THE *Quarterly Journal of Inebriety* issued its first number December 1, 1876. It is published under the auspices of the American Association for the Cure of Inebriates, and is edited by Dr. T. D. Crothers, of Binghamton, N. Y. The present number contains the anniversary address; an article on the increase of inebriety, by Dr. Beard; an analysis of one hundred cases of inebriety; and miscellaneous articles. It is well printed and presents a creditable appearance.

COFFEE TAVERNS IN LONDON.—The establishment of coffee taverns in London is the latest phase of the temperance movement in that city.

DR. WILLIAM REGNAULT, of Paris, died November 25th, as the result of diphtheria, with the poison of which he was inoculated during the performance of tracheotomy. He was forty years of age.

THE LAW OF LIBEL.—The *Cork Constitution*, in commenting upon the recent libel suit against the *Medical Press and Circular*, says: "We can conceive nothing more disastrous to the interests of society than that the force of public opinion, expressed through the press, should be suppressed through fear of legal consequences, annoyance, and expense."

TYPHOID FEVER IN PARIS.—The mortality from typhoid fever is still alarmingly great, being 104 last week.

SMALL-POX.—There is a serious epidemic of small-pox in Liverpool.

SHORTER HOURS FOR DRUGGISTS.—The druggists of Great Britain are perfecting a plan for closing their shops at an earlier hour in the evening.

"PILL ROW."—Thirty-fourth street is, to-day, in the number of physicians it contains, what East Broadway was in olden times. From this circumstance it is facetiously known as "Pill Row."

BODIES BURIED BY THE CITY.—The average number of bodies of infants received at the Morgue and buried by the city, per day, is about twelve, mostly from tenement-houses. The number of bodies of adults is very much smaller than for many years.

NEW JOURNALS.—The Louisville *Medical News* says: "Evidences of new medical journals for 1877 are rife. It will soon be in order for the Boston *Medical Journal* and the New York MEDICAL RECORD to read the riot act."

As far as we are concerned we give the editor of the *News* due credit for his foresight, for the following was in type when we read the above:

"Several new medical journals are announced for the coming year. The reasons given are, 'in consequence of a want long felt by the profession,' etc. The shoe is so apt to be on the other foot, that at the end of a year or two the wants of the journal are much in excess of those of the profession. The latter may be considered, for the sake of the argument, an unappreciative set in any event, but that is no reason why we should not hope for the best."

HOSPITAL PATIENTS.—There is a great want of good clinical material in the hospitals of this city, but judging from the attempts made to obtain it, we have no doubt that medical charity will prevail.

HEALTH OF PHILADELPHIA.—The Report of the Board of Health of Philadelphia for the year 1875 has just been published.

MODES OF ADMINISTERING IODINE.—Dr. E. Seguin writes: "The danger of administering pure iodine in the therapeutics of children, and of persons evidencing scrofulous and tubercular diathesis, was pointed out with great force by Jules Simon in one of his clinical lectures at the Hospital for Children in Paris. His prominent points were:

"'Tincture of iodine must not be employed pure to tuberculous children. It should be diluted either with glycerine or with some unguent. Neither iodide of potassium nor iodide of iron should be given to children under two years of age, except perhaps in case of acute hereditary syphilis. It may be given to the nurse. Elder children bear the drug well. Iodoform is of great service in case of ozœna, etc.'—The *Moniteur Thérapeutique*, Aug. 7, 1876.

"Nothing is said of iodine used in its natural form of *emanation*, both inwardly and externally. The practice of a great surgeon (Lister) has called the attention to iodized cotton as an antiseptic dressing. In my experience, this medicated cotton, or the carbol iodized cotton, controls better than any other previously known local remedy the enlargement of the submaxillary glands which accompanies the second stage of diphtheria.

"I beg leave to say, also, that for more than fifteen years, I usually prescribe the inhalation of iodine in forms whose formulary may be found in many drug stores of this city. The most usual of these forms being that of a pillow containing aromatic plants, say sea-weeds, black walnut or fern leaves, etc., according to secondary indications. In this pillow is introduced a little bag or satchel containing a drachm or so of iodine, in as much of bran as will prevent the too rapid evaporation of the drug. When the satchel does no more smell of iodine, it is refilled, and when the pillow begins to smell the pus-like odor peculiar to those cases, the herbs are also renewed. Let us remark *en passant* that the alteration of both is in proportion to the gravity of the affection. The pillow must be soft, and broad enough for the head and chest to remain upon it during the night tossings. The urine has to be tested for albumen during this treatment."

A HINT FOR POLYPHARMACISTS.—An Irishman complained to his physician that he stuffed him so much with drugs that he was sick a long time after he got well.

Original Communications.

EAR-ACHE,

OR CATARRHAL INFLAMMATION OF THE MIDDLE EAR. A NEW METHOD OF TREATMENT.

By SAMUEL SEXTON, M.D.,

NEW YORK.

SURGEON IN CHARGE OF THE N. Y. EAR DISPENSARY; MEMBER INTERNATIONAL OTOLOGICAL CONGRESS; AMERICAN OTOLOGICAL SOCIETY, ETC., ETC.

For the purposes of this article, catarrhal affections of the middle ear will be divided into two classes, namely: acute and chronic. I shall here confine myself to the former, reserving for a future occasion the treatment of the chronic variety. It is in the acute form of the disease that the inflammation is mostly attended by that symptom by which the affection is generally known as ear-ache.

ACUTE CATARRH OF THE MIDDLE EAR.

The causes, symptoms, etc., of this disease are so well set forth in the treatises on otology, which are accessible to all, that I shall in this article only refer to them incidentally, my object being to introduce a method of treatment which has been attended with favorable results, although it has been but a short time—four months—the subject of my attention. I venture, however, to offer my observations to the profession, crude as they are, in order that others may determine their value by independent experiment.

The frequency of ear-aches among that large class of sufferers, young children, certainly appeals very strongly to all of us to hasten to make known any means which shall benefit them. The case which first led to these remarks was as follows:

Case I.—Philip H., aged eighteen, a stout healthy lad, whose occupation was that of office-boy, came to the New York Ear Dispensary for treatment September 13th, 1876, with catarrhal inflammation of the middle ear, both sides affected. Three weeks before, he "caught cold," and suddenly became deaf; his ears felt "stuffed." Pain or noises were not a marked symptom. This deafness continued for a week, when, diving in the water while bathing, he felt a sharp crack; immediately he could hear quite well; but after the lapse of two days the deafness gradually returned.

Examination.—Meati very large; the memb. tym. were both inflamed and slightly bulging; short processes prominent. The inner extremity of the meatus externus on both sides was involved in the inflammatory process. The height of the disease had been reached, if not passed.

The mucous membrane of the throat was much congested; uvula elongated and enlarged. Hearing distance, as measured by a watch which can be heard by the normal ear eighty-four centimetres, R. $\frac{0}{84}$, L. $\frac{0}{84}$. The Eustachian tubes were not permeable by the Valsalvian experiment, but were made so by means of a catheter. Medicine was ordered for the general symptoms, and syringing with warmed water was used at each visit.

Sept. 14.—Hearing, R. $\frac{3}{84}$, L. $\frac{p}{84}$. Catheterized both e. t. Condition of both ears about the same.

Sept. 16.—Hearing, R. $\frac{13}{84}$, L. $\frac{p}{84}$. Catheterized.

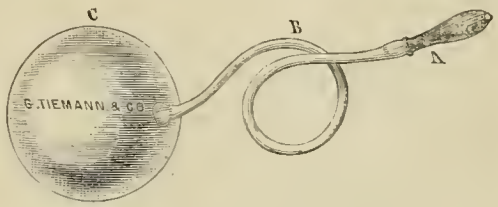
Sept. 19.—Hearing, R. $\frac{5}{84}$, L. $\frac{4}{84}$. By this time, having thought much over the statement made by the patient at his first visit, namely, that *after the immersion of his head under water he heard well for a few days*, I concluded that the improvement in hearing was caused by the *pressure upon the m. t.* I therefore decided to make gentle pressure upon the m. t. by means of condensed air. The result was hearing, R. $\frac{20}{84}$, L. $\frac{10}{84}$.

Sept. 20.—Syringing brought away from both ears some exfoliated epidermis and cerumen, after which hearing was R. $\frac{20}{84}$, L. $\frac{23}{84}$. Condensation of air was then made as before, and the hearing found to be R. $\frac{38}{84}$, L. $\frac{38}{84}$.

Sept. 21.—Patient improving. Hearing, R. $\frac{26}{84}$, L. $\frac{20}{84}$. After condensation or pressure, R. $\frac{25}{84}$, L. $\frac{28}{84}$.

Sept. 25.—Improving. Hearing, R. $\frac{56}{84}$, L. $\frac{26}{84}$; after pressure. R. $\frac{84}{84}$, L. $\frac{45}{84}$. The case continued under treatment until October 7th, syringing being required every few days until the old skin had completely exfoliated from the m. t. and neighboring parts of the m. externus. The pressure was made at each visit, and was never attended with any pain. Towards the last, rarefaction of the air in the m. externus was also resorted to, in order to prevent adhesions. I resolved in future to begin this earlier. I omit many details of the ordinary treatment in this case, in order to not occupy too much space—my object being to show the results of condensation and rarefaction of air in the m. e.

A cut is here introduced, showing the instrument I have devised for the treatment of aural cases by this method.



It consists of a soft rubber bulb, C, connected by a flexible tube, B, to a hard rubber nozzle, A, which is somewhat olive-shaped and adapted to fit into the entrance of the external auditory meatus. When used, the nozzle is held to the ear by the left hand, and pressed against the opening with sufficient force to make the fitting as nearly air-tight as possible; while the bulb is held in the right hand, to be manipulated as desired. When using the instrument, it is of course never to be forgotten that the membrana tympani is ordinarily never stimulated to action by a greater force than the wave pulses of the air, and that the organ of hearing may be injured by too great force. When thus carefully used, the danger of injury is not so great as by Politzer's inflation, especially in cases where the E. tubes are freely open. When the instrument is to be used for suction—rarefaction—for instance, to draw out a membrane much depressed, the bulb is simply collapsed by pressure of the right hand before the nozzle is applied to the ear. Upon removing the pressure of the hand, the bulb, by its own elasticity, gradually resumes its expanded condition—thus rarefying the air in the m. externus. If it is desired to give the m. t. and ossicula motion, the bulb is alternately compressed and expanded while the nozzle is in contact with the ear.

The remark is here suggested that if the object of forcing air into the cavity of the tympanum, by means of the catheter or Politzer's experiment, is to remove

secretions from that cavity, the result may be frequently of quite an opposite character, *i. e.*, the mucus of the Eustachian tubes may be driven into the tympanic cavity.

If the contents of the tympanum be of such consistence as to be readily driven out at all, it may in many instances be accomplished, to some extent, by pressure upon the m. t. from without. I am satisfied that in many cases paracentesis has been avoided by this means, as I do not find this operation advisable in so many cases as formerly, and I am of the opinion that in the greater number of cases of acute catarrh of the middle ear the operation should be avoided unless rupture of the m. t. is imminent from pressure behind the drum-head. Where the inflammation is high, of course, leeching is not to be omitted; and the instillation of water, warm as it can be borne by the patient, is applicable to nearly all cases. I find among the poor, where this affection is very prevalent, that quinia, iron, etc., are more frequently indicated than local depletion, especially as many cases are not seen until the most active stage is passed.

The subacute form of catarrh may often go on to perforation of the m. t., before the patient is aware that any serious result of a cold is likely to ensue. The following case further illustrates the subject:

Case II.—H. F., aged sixteen, consulted me on October 26, 1876, for ear-ache. She is a bright girl—brunette. Mother died of consumption at age of thirty-five, also some of her mother's sisters. She has menorrhagia, and some symptoms of pulmonary disease. She is subject to frequent attacks of catarrh, and has suffered from ear-aches since six years of age. She frequently has sore throat.

For the past week she has had severe pain in the left ear, with singing noises.

Examination.—Both m. t. dull; mucous layer injected; left m. externus at inner extremity quite red and tender, with the skin exfoliating. Tonsils engorged, and the mucous membrane about the pharynx thickened and deeply injected. Both Eustachian tubes open. Hearing, R. $\frac{30}{84}$, L. $\frac{25}{84}$. After syringing both ears, pressure was made, after which hearing was R. $\frac{40}{84}$, L. $\frac{41}{84}$.

October 28.—Treatment continued; no pain.

November 11.—The same treatment has been continued daily, during which time she has had no pain, but noises in varying degree. The hearing at this date is recorded, R. $\frac{84}{84}$, L. $\frac{84}{84}$, being normal for the watch, and she can hear whispered words fourteen feet—the length of the room. Once, on the 29th of October, she felt a little dizzy after the operation, but no more than often occurs from syringing. During this time she had frequent exacerbations of the catarrhal difficulty, which were met by five-grain doses of quinine twice daily. Upon inspecting the left ear, there was seen, situated on the m. t., anterior to the handle of the malleus, a small, fatty-like substance, about the size of a grain of wheat in circumference; it appeared to occupy a space between the middle and external coats. The m. t. was quite dull, but otherwise looked well. The right ear was improving rapidly.

November 13.—She has taken fresh cold, and the right ear has been very painful all night; she could not sleep. Examination shows the posterior half of the m. t. to be bulged out, the anterior portion much inflamed with injected blood-vessels; the meatus at inner extremity denuded by exfoliation of the epidermis. After syringing, the whole membrane is red in color. Hearing, R. $\frac{12}{84}$, after pressure $\frac{30}{84}$.

November 14.—The myringitis well-marked, with slight, stringy mucous discharge, indicating perforation. Noises very great. Pressure, which was not attended with pain.

November 17.—The treatment has been continued with such additions as the condition of the patient seemed to require for sore throat, etc. The perforation is well defined; the membrana tympani is clearing up; no discharge, but much singing noise. Hearing, R. $\frac{17}{84}$, which pressure increases to R. $\frac{28}{84}$.

November 20.—Condition much the same, but hearing improving, being, after pressure, $\frac{48}{84}$.

November 23.—Improving; no noises, no discharge; perforation smaller. Hearing, after pressure, R. $\frac{58}{84}$. Suction, as well as pressure, has been used for some days, and the membrane is nowhere adherent.

November 26.—Slight singing noise again.

November 28.—Noises ceased; perforation smaller; cone of light normal; hearing same.

December 4.—No noises or pain. Hears voice well. The perforation is very small. Hearing per watch, $\frac{54}{84}$. Treatment continued.

December 10.—Discharged well. The perforation is closed. Hearing about normal.

During the progress of the above case, the general condition required constant attention—in a word, she was a most favorable subject for catarrhal inflammations.

Space will only permit me to introduce here one more case bearing upon the subject.

Case III.—Thos. C., aged fourteen. Came to me November 27, 1876. For one month has had ear-ache occasionally (left ear). Has increased of late and keeps him awake at night. The noises distress him very much, and interfere with his studies at school.

Examination.—The boy is in good health, otherwise than the catarrh of the middle ear. Throat but little affected.

Meati very large. Both m. t. dull; processes of malleus quite prominent; cone of light seen. Removed by syringing some dry and exfoliated epidermis from both ears. Hearing, R. $\frac{23}{84}$, L. $\frac{25}{84}$. Pressure and suction to both ears, after which hearing, R. $\frac{40}{84}$, L. $\frac{40}{84}$.

November 28.—Pressure and suction to both ears. Very little pain since last visit.

December 1.—The same treatment has been continued daily since last visit, during which time he has had no pain. After the operation, there is slight injection of the blood-vessels running along the handle of the malleus. Hearing, R. $\frac{74}{84}$, L. $\frac{71}{84}$.

December 2.—Noises have ceased; he hears voice better; no ear-ache.

December 4.—No ear-ache; hearing improving; the short processes on both sides still quite prominent. The Politzer experiment shows both e. t. to be open. The patient was to report again if pain or noises returned. As he has not done so, I infer that the benefit has been lasting.

In infancy and childhood, the difficulties in the way of using the catheter, or Politzer's experiment, are only too well known. But the cavity of the t. may be freed in some measure by pressure from without. My experience is that it always relieves the pain which results from inflammation and the accumulation of serum in the t., where the most free nervous distribution is to be found.

Adhesions can in no other way be so well prevented, or broken up when formed; for the movement of the m. t. may be kept up when other means cannot be resorted to. The extent to which this movement can be carried with benefit is considerable; and when we observe a membrana tympani so concave that it touches the promontory of the t. in one case, or is bulged out by secretions in another, we can judge somewhat of

the capacity of these parts for tension without injury. Sometimes the ear is too painful or tender to permit the application of the instrument; its use then is not to be thought of; but the inflamed membrana can be acted upon in most cases without pain or injury.

That perforation may occur when not expected by the appearance of the parts, and unattended by pain, is well known. Recently I examined the ear of a physician, and, to his surprise, informed him that the slight catarrhal stuffiness, which had scarcely attracted his notice, had resulted in a perforation.

In Case II. of this article, it will be observed that perforation had occurred in the right ear almost as soon as attention was again particularly drawn to the affected part.

It is not unlikely that the frequent (daily) pressure upon the m. t. in many cases may excite the movement of serum along the e. t. towards the pharynx, and thus keep the t. free of hurtful collections. That this is the natural outlet for the secretions of the t. cavity there can be no doubt. When tinnitus aurium depends upon the adhesions between the malleus and m. t., and between the ossicula and the stapes and fenestra ovalis, may not much benefit arise from exercising, as it were, this mechanism?

The air forced into the t. cavity through the Eustachian tubes does not perform this so well, and cannot be done with the same ease and gentleness.

The frequency of the applications must be determined by the results as derived from experience.

The congestion of the m. t. is not as marked after this operation as is sometimes the case after syringing—usually, there is none. The hearing power in nearly all cases of deafness will be increased in as great a degree as by any other means we are acquainted with, and in many instances benefit is found where other means do not avail. I am aware that many otologists have made valuable suggestions as to the use of condensed and rarefied air, but I believe none have recommended its use, in acute aural catarrh, in the manner here indicated.

If I have made mention of its use in cases where it has been used before, it is only to add my observations to those of others. Nor is it intended to be implied that a judicious use of any means of inflating the middle ear shall be used any the less in treatment.

In regard to chronic aural catarrh and its frequent attendant, tinnitus aurium, I shall give the results of my experience on a subsequent occasion.

NINE INCHES OF BROOM-STRAW, WITH CALCULOUS CONCRETIONS, REMOVED FROM THE BLADDER BY LITHOTOMY.

By J. E. O'BRIEN, M.D.,

SCRANTON, PA.

This patient, a Frenchman, aged about forty, and married, was present at an operation of lithotomy which I made at his house one year ago for a young man aged twenty-three, from whose bladder I removed two stones of the size, respectively, of an almond and an almond kernel.

In the present case the patient tells his story as follows: One month ago, while working in the woods, he fell astride of a thorn, which entered his flesh in front of the fundament, and had since prevented his urinating freely. A medical gentleman had attended to him, passing the catheter, and sounding him frequently, but assuring him that there was "nothing there;" meantime he was passing blood and pus per urethram.

On passing the sound I detected a foreign substance in the prostatic part of the urethra; it had not the resiliency of a thorn, but might, on a careless examination, have been mistaken for a band of cicatricial tissue or the mouth of a false passage formed by awkward attempts at catheterism. There was no scar on the perineum, nor could any thorn be felt per rectum. On the following day, November 14th, I cut down upon a grooved staff, held by my friend Dr. Fisher, as if for lithotomy; on arriving at the prostatic urethra I detected the end of a broom-straw, which I withdrew from the bladder, and found to be three inches long, with the distal end clean cut, and the other frayed and encrusted with concretions, showing that I had not broken it. On cutting into the bladder I discovered and removed a second piece four inches long, and a third piece two inches long, encrusted with concretions to the size of a No. 15 sound. This latter portion was the branching top of the broom-straw; it had lain in the bas-fond of the bladder in the most favorable situation for the deposit of concretions, while, of the other two pieces, one was held by the neck of the bladder, and the other stood obliquely within it. The operation was completed by the removal of a quantity of loose gravel from the bladder. The patient made a prompt recovery. He has volunteered no further information as to the entrance of the "thorn," and I deem it quite unnecessary to insist on any, or to hint to the readers of the Medical Record the real route and motive which conveyed the foreign substance to its awkward situation.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

(Clinic of Frank H. Hamilton, M.D.).

REFRACTURING THE THIGH BONE—WHEN TO RESORT TO THE OPERATION.

The case before us was a child who had sustained a fracture of the femur near its middle portion. It had been treated by the use of short splints, and when first seen by the visiting surgeon, at the end of two weeks, union had taken place, but the fragments had united in such manner as to leave a marked deformity. Union in so short a time was believed not to be uncommon in a young subject. It was proposed to refracture the bone, and then dress it with a splint extending the whole length of the limb and reaching up on the body. The view was advanced that in cases of recent fracture the bone could be refractured with safety, for union would almost invariably take place; but in cases of old fracture, there was great risk of non-union if the bones were refractured.

FRACTURE OF THE BODIES OF THE VERTEBRÆ—GREAT DEFORMITY—RECOVERY.

A middle-aged man was presented who had sustained a fracture of the bodies of several of the dorsal vertebræ. The case was interesting in the following particulars: There had been no caries, no abscess, and recovery had occurred with only a slight paralysis of the right leg remaining. It was said that only a few

cases of broken back recovered, and that recovery was almost always accompanied by paralysis of the extremities below the seat of the fracture.

FRACTURE OF THE CLAVICLE—DIFFERENT METHODS OF TREATMENT—AN INEVITABLE RESULT.

There were four cases of fracture of the clavicle, and each had been treated by a method differing from that employed in the others. One had been treated with plaster-of-Paris, another with adhesive plaster, a third with an axillary pad and roller, etc. In each case overlapping of the fragments was present, and it was said to be an inevitable result. In the case in which the axillary pad had been used, the roller had been so tightly adjusted in the effort to employ the arm as a lever to hold the fragments in proper apposition, that paralysis of the arm had been produced as the result of pressure upon the nerves. All these cases had been treated outside of the hospital.

With regard to treatment of fracture of the clavicle, the remark was made that as yet nothing had been devised which would throw the shoulder back and retain it in that position. The nearest approach to success in that particular was secured by placing the patients upon the back, but it was almost absolutely impracticable to retain them in that position a sufficient length of time.

INCOMPLETE FRACTURE OF THE CLAVICLE—EXCEPTIONAL SEAT OF THE FRACTURE.

The fracture in this instance had occurred in the right clavicle of a child, at the junction of the outer and middle third. It belonged to the incomplete or "green-stick" variety. The seat of the fracture was that ordinarily occupied when the accident occurred in adults. It was therefore exceptional in the child, for with nearly the same uniformity this fracture, in the child, occurs in the middle portion of the bone. It was claimed by the visiting surgeon that provisional callus occurred only as an exception in adults, but that in the child it was the rule. In the case before us a node-like swelling was noticed by the mother the next day after the child received the injury. The bone was bent considerably, but it was said that the allignment would ultimately be restored and that the callus would disappear. Dressing was necessary only as a warning against accidents that might make the fracture complete.

FRACTURE OF THE ACROMION PROCESS—INTERESTING BECAUSE OF ITS UNUSUAL SITUATION.

There was slight motion and slight crepitus, but no displacement. The bone was fractured *outside* of the acromio-clavicular junction, and that unusual situation of the fracture gave the case its interest.

DIASTASIS AT THE HEAD OF THE HUMERUS—FAILURE OF ALL EFFORTS AT REDUCTION.

The accident had occurred at the shoulder of a young man about sixteen years of age. The upper convex surface of the extremity of the humerus could be distinctly seen and felt on the front aspect of the joint. A variety of methods had been employed for reduction, but unsuccessfully, and Dr. Moore's method was repeated in presence of the class. That also failed, but it was not regarded as a fair test for the method, for the reason that there had probably been some effusion between the detached parts.

DISLOCATION OF THE HEAD OF THE HUMERUS UNDER THE CORACOID PROCESS—DIAGNOSTIC SYMPTOM OF DISLOCATION AT THE SHOULDER-JOINT—REDUCTION BY MANIPULATION.

The case illustrated in a very marked manner the diagnostic symptom of dislocation at the shoulder-joint. When the joint and its surroundings are normal, if the palm of the hand be placed over the opposite shoulder, like a saddle, the elbow can be brought in contact with the chest with perfect freedom. The same thing may be accomplished when a fracture has occurred in the neighborhood of the joint. When a dislocation, however, has taken place at this joint, and the palm of the hand upon the affected side is placed over the shoulder of the well side in the manner referred to, the elbow stands out from the body and cannot be brought in contact with the chest. This fact was illustrated in the case before us. The dislocation was reduced by manipulating in the following manner. The arm was extended until brought at a right angle with the long axis of the body, the fore-arm was flexed at right angle with the arm and then used as a lever to produce rotation forwards by turning the palm of the hand down and carrying it around until the head of the bone was thrown into the glenoid cavity.

CONCUSSION OF THE BRAIN—REMARKABLE DURATION OF UNCONSCIOUSNESS—PECULIAR FACT REGARDING MEMORY.

A male patient had fallen about fifteen feet, and had probably struck upon his head, as there was a contused wound there, and no wound upon any other part of the body. He was brought to the hospital, gave the usual symptoms of concussion of the brain, and remained in a state of unconsciousness *nine* days. At the end of that time his consciousness was entirely restored, and his intellect in the main seemed to be unimpaired, for he told his story in an intelligent manner. There was one noticeable fact relating to his memory, and it was said to be a peculiarity of such cases; namely, he had no recollection of anything that occurred upon the morning of the accident, nor of the day previous. His latest recollection was regarding an appointment made the second day before the occurrence of the accident. His treatment had consisted chiefly of rest in bed.

Progress of Medical Science.

CAN SYPHILIS BE CONVEYED BY THE MILK?—R. Voss considers it proved by the following experiments that syphilis is as capable of being conveyed by the milk of syphilitic persons as by the blood. He injected a Pravaz syringeful of milk from a syphilitic woman into each of three prostitutes. The mammary glands were entirely free from the disease, and the milk was obtained by pressing it out. One of those experimented on was already syphilitic, and the result nil. Nor was there any result on the second. In the third, who was not syphilitic, the injection was made on September 27th; an abscess formed, as in the others, and after it was healed a papular eruption showed itself round the site of the injection on November 3d. This was followed by more general manifestations, which yielded to inunctions.—*Petersb. Med. Wochenschr.*, 1876, No. 23; *Centr.-Bl. f. d. Med. Wiss.*, Oct. 28, 1876.

THE ACTION OF PILOCARPIUM MURIATICUM.—Dr. Adolph Weber, of Darmstadt, has been testing an alkaloid prepared by Merck, from Pernambuco jaborandi, and called pilocarpium muriaticum. He finds that the subcutaneous injection of one c.c. of a two per cent. solution of the salt—which, by the way, is painless—is equivalent to an infusion of about seventy-five

grs. of jaborandi leaves in four ounces of water. Its first and most constant effect is an increased secretion of saliva, which sets in some five minutes after the injection and outlasts the sweating. This latter begins about five minutes later, and is often accompanied by a decided chilliness. With the dose mentioned it lasts about an hour on an average, if the patient is up; two or three hours if he stays in bed. There is at times a slight increase in the frequency of the pulse and in the temperature. There is but a slight and occasional feeling of weakness, while nausea or vomiting are infrequent. The last two points constitute a great advantage over the decoction of jaborandi. The contraction of the pupil begins late, but lasts on an average for twelve hours. When instilled into the eye, the maximum effect is reached in from twenty to thirty minutes and lasts three hours. Weber claims great advantages from the use of this salt in cases of turbidity of the vitreous after chronic iridochoroiditis; also in the treatment of a case of œdema of the lungs, following tracheotomy for croup.—*Centr.-Bl. f. d. Med. Wiss.*, Oct. 28, 1876.

New Method of Treating Urethral Strictures.—At the meeting of the *Académie de Médecine* at Paris, on November 7th, M. C. Fort described a method of treating urethral strictures of small calibre, which he has employed for seven years with great success. He first passes a filiform bougie through the stricture and leaves it in position for twenty-four hours. The presence of the bougie excites a slight inflammation of the tissues that form the stricture, which softens them and renders them more extensible. The bougie is provided with a metallic cap, to which catheters of various sizes may be attached. At the end of twenty-four hours, a conical catheter, three millimetres in diametre at the largest part, is attached to the bougie, and pushed forward through the stricture, the guide keeping it in the proper direction. The catheter is then withdrawn until the metallic cap on the end of the bougie emerges from the meatus. The catheter is now detached from the bougie and replaced by another, which is five millimetres in diameter at its largest part. This is in turn made to traverse the stricture, then withdrawn, and replaced by a third catheter which measures seven millimetres in its largest diameter. The bougie during the passage of the catheters coils up in the bladder, where it can do no harm.

By this method even very tight and indurated strictures may be completely dilated at a single sitting. The guide removes all danger of making a false passage. The pain is so slight that anæsthesia is unnecessary. The operation rarely causes any hemorrhage. During the seven years that M. C. Fort has employed this method, he has never known it to be followed by any complications except an occasional attack of urethral fever, which has always readily yielded to quinine. To prevent a relapse, a catheter must be passed at intervals for a long time.—*Gazette Médicale de Paris*, November 11, 1876.

Treatment of Neuroses of the Head.—At the séance of the *Académie de Médecine*, at Paris, on October 21st, Prof. Bitot, of Bordeaux, read a memoir on the efficacy of light cauterizations of the pharyngeal mucous membrane in the treatment of certain neuroses of the head with coincident amnesia, and on the probable role of the superior cervical ganglion in these cases. The following are his conclusions:

1. The head is the seat of certain nervous troubles, the precise localization of which is not as yet settled.

2. The cranial portion of the great sympathetic must have some influence in the production of these disturbances.

3. It is rational in that case to assume that the superior cervical ganglion, which constitutes the principal centre of the sympathetic system in the head, is the point of origin of the nervous disturbance.

4. The anatomico-physiological importance of this ganglion, which is veritably the brain of the vegetative life of the head, must be borne in mind by the observer, whenever a neurosis of this region comes into question.

5. The observer must particularly bear in mind that this neuropathic condition will be rebellious to the ordinary methods of treatment.

6. The relations of this ganglion with the pharyngeal mucous membrane make the latter the point of election for the application of certain irritants that will act on the ganglion and its most distant branches.

7. The painting of this mucosa with the tincture of iodine has furnished remarkable results when the disturbances were essentially nervous. On the other hand, it had proved useless in the disturbances consecutive to apoplexy.

8. In many cases complicated with amnesia, the memory has been regained under this treatment.—*Gazette Médicale de Paris*, November 4, 1876.

Sprains of the Medio-Tarsal Articulation and their Treatment.—The writers on surgery who have treated of sprains of the foot have usually only described one variety of sprain, viz., that of the ankle-joint, although the injury often affects the medio-tarsal joint, the articulation of Chopart. When this joint is injured, the patient is able after the accident to walk on level ground when the sole of the foot can be put down squarely; but, on the other hand, a very severe pain is caused by the slightest twist of the anterior part of the foot upon its posterior half. This pain can be easily excited by seizing the anterior part of the foot and twisting it on its antero-posterior axis. There are also tenderness on pressure over the medio-tarsal articulation, and ecchymosis and swelling of the dorsum of the foot. This variety of sprain, which is often too slight to prevent walking, may be neglected as it causes so little trouble, and then in certain predisposed subjects may lead to chronic arthritis and all its unpleasant consequences. When the sprain is marked, M. Terrillon recommends the employment of prolonged, methodical massage as soon as possible after the accident. The massage should be at first gentle, and be gradually made more energetic, and may be repeated in the more painful cases. A flannel bandage should then be snugly applied to the foot, and the patient recommended to walk around as soon as possible, notwithstanding the pain the first steps will cause him.—*Le Mouvement Médical*, October 14, 1876.

Temperature of the Fœtus in the Uterus.—Dr. Alexeeff, assistant to the obstetrical clinic in the University of Moscow, reports some observations on this subject, that confirm those of Wurster. In eight cases he has been able to take the fœtal temperature during labor; in four of these cases the breech presented, and the rectal temperature of the child was taken; in the other four cases the face presented, and the temperature was taken under the tongue. He has constantly found the fœtal temperature higher than that of the vagina of the mother.—*Lyon Médical*, October 29th.

Effusion of Blood into the Knee Joint.—At a recent meeting of the *Société de Chirurgie* of Paris, M. Nicaise presented to the Society a knee-joint removed from the body of a man sixty-six years of age, who had been injured in August, 1875, by a fall on

the left knee. A violent contusion resulted from the fall, which forced the patient to enter a hospital. He was under almost constant treatment in various hospitals until his death on October 31, 1876. At the autopsy the knee-joint was opened by a curved incision above the patella, and the cavity of the joint was found to be filled with a clot of blood that was attached to the posterior surface of the patella and to the condyles of the femur by rather firm, glutinous adhesions. It was also adherent to the synovial membrane. At the point of contact of the femur and tibia, small, flattened lamellæ of fibrin were found. The clot was fibrinous, and colored by the hæmatine, just as a recent clot would be. The other lesions found at the autopsy were not described. M. Nicaise thought the specimen interesting on account of the length of time (14 months) that the clot had remained intact in the cavity of the joint.

M. Marc. Sée did not believe that the effusion took place at the time of the accident; he thought that the joint had been affected for a long time with fibro-plastic arthritis, and the sanguineous effusion was of recent date. M. Verneuil took the same view, and maintained that it was impossible for effused blood to remain so long unchanged, even in a closed cavity. Microscopical examination, however, was necessary to settle the question. MM. Trélat and Léon le Fort dissented from this view, and insisted that clots of blood sometimes remain for years unchanged. The former referred for illustrations to the cases reported by Morel-Lavallée, and the latter pointed to the fact that in an aneurismal sac that is perfectly cut off from the current of the blood, a clot is not unfrequently found at the end of two or three years or more, presenting exactly the same appearances as the specimen presented by M. Nicaise.—*La France Médicale*, November 18th.

Dislocation backward of the Acromial end of the Clavicle.—In an instance of this somewhat rare form of dislocation observed by M Nicaise, at the Hôpital St. Louis, Paris, an attempt was made to effect reduction under chloroform, but without success; the arm was accordingly put in a sling. Some experiments were then made upon the dead body, to determine the mode of production of this form of luxation. Section of the acromio-clavicular ligament did not allow of it, but when the trapezoid was cut and the conoid left intact, the desired displacement was effected; it was accordingly inferred that rupture of the trapezoid ligament is necessary in such dislocations.—*Lancet*, Oct. 14, 1876.

The Poisonous Action of Water Hemlock (Cicuta Virosa) and its Consequences.—Prof. Boehm, of Dorpat, as the result of experimental investigations upon *cicuta virosa*, has obtained a substance possessing the peculiar properties of the plant, which he names *cicutoxin*. In its action upon the animal economy, it is identical with the salts of baryta and with picrotoxin. He found that cicutoxin was absorbed by the stomach slowly, and that the smell was strong when the bodies of poisoned animals were opened. He therefore suggests that, in medico-legal cases where it is suspected, the stomach and intestines should be washed with ether and experiments made with the extract obtained. In the case of frogs, it was ascertained that the hemispheres had nothing to do with the development of the cicuta spasms. Nor does the cerebellum share in them. If a section is made through the spinal cord below the calamus scriptorius, the parts supplied by the spinal nerves given off below the section are paralyzed, while their reflex irritability remains. There are the characteristic spasmodic movements of the head, neck and chest, and the peculiar cry. The latter is explained by the excess of inspiratory over expiratory action on filling the lungs. Then, when the spasmodic seizure sets in, the abdominal muscles contracting, force the air out again through the larynx, which is itself spasmodically narrowed. In mammalia, after ingestion of the poison, there is a period of repose, lasting from fifteen to thirty minutes. Then the animal grows uneasy, and is soon attacked by the characteristic violent tetanic spasms. The immediate cause of death is deficient respiration. When given by the mouth, about three-quarters of a grain of cicutoxin to every two pounds in weight will be a fatal dose for a cat; but more will be needed for a dog. The action of the poison is exerted upon the medulla oblongata.—*Arch f. Exper. Pathol. u. Pharm.*, V., p. 279, 1875; *Schmidt's Jahrb.*, 1876, Bd. 171, No. 9.

The Real Origin of the Hypo-glossal Nerve.—In a recent number of the *Journal de l'Anatomie* M. Duval has a memoir on the real origin of the cranial nerves having motor functions, the investigations upon which he forms his conclusions having been made upon sections hardened by immersion in bichromate of potassium and chromic acid. He describes the now well-known course that the hypo-glossal takes, tracing it inwards as it enters the fissure between the olivary body and the anterior pyramid on either side, and so in its course to the hypo-glossal nucleus, one of which is situated on each side at the posterior extremity of the raphe of the bulb. He finds that these *efferent* fibres do not decussate. The thickness of the nucleus is about an eighth of an inch, and in man it may be seen by the naked eye beneath the delicate ependyma and ciliated epithelium of the fourth ventricle. The nerve cells are of two kinds; those that resemble the cells in the anterior cornua of the medulla, mostly large and multipolar, and others of much smaller size. But the most interesting observation seems to be that there are also *afferent* fibres, as he calls them, which, proceeding from the encephalic centres, and running in the antero-lateral columns of the bulb, enter the raphe and then decussate, passing into the hypo-glossal nucleus of the opposite side and passing into the nerve-cells of the smaller size. It is thought accordingly that this microscopical observation will explain those cases of paralysis of one side of the tongue that are caused by lesions of the cerebral hemisphere of the opposite side. The decussation is therefore in the *afferent* fibres, and not, as Koelliker and others have maintained, in the *efferent* ones.—*Lancet*, November 4, 1876.

On the Radical Cure of Hernia.—Dr. Julius F. Miner, of the Buffalo General Hospital, expresses himself succinctly and decidedly in regard to this operation. He says, notwithstanding the reports of successful cases, his opinion is still that in femoral hernia the operation is too dangerous to be justifiable; in umbilical hernia the congenital form usually disappears in after-life, and the acquired form occurs generally in elderly stout people, who are not fit subjects for surgical operation. The operation in practice is confined to persons of the male sex, but it ought never to be performed except upon patients "who have been properly informed of its dangers, and who deliberately choose to incur them."—*Archives of Clinical Surgery*, December, 1876.

Maunder on Excision of the Hip-joint.—In some clinical remarks made at the London Hospital, at an

operation for hip-joint disease, Mr. Maunder said that a very large majority of patients with this disease recover without an operation. In about a dozen cases then under his care the only chance for life in two, and for recovery without extreme deformity in one, was excision. He stated that there are two different processes of disorganization in a joint, one with and one without suppuration. As the gelatinous form of the disease may run its course without suppuration, surgeons should be encouraged to seek for recovery by fibrous anchylosis, and should not be hasty in condemning such a joint to excision, or the limb perhaps to amputation. Four cases are given in which he excised in June last; in two there was such free suppuration as to threaten life; in the third, deformity was great, disorganization of the joint complete, and anchylosis had occurred in a faulty position; in the fourth, there was a right angular deformity with suppuration. The upper end of the bone was then removed without splintering, and a sequestrum was extracted. This sequestrum had been the cause of suppuration for seven years. All of the cases did well.—*Lancet*, Oct. 14, 1876.

Disease of the Sterno-clavicular Articulation.—Mr. Hamerton, of the Lambeth Infirmary, has had under his care three cases of this affection. In all of them, painful swellings occurred at the articulation, pus formed, and death of the bone ensued. In two of the instances death occurred; in one from phthisis, and in the other from pyæmia, it is alleged. In the third case the bone was resected and great improvement followed. M. H. regards the disease as imperfectly understood, and the cause of the disease obscure, inasmuch as the history of neither injury, syphilis, gout, or rheumatism could be elicited. Dr. Gross, of this country, however, has alluded to somewhat similar cases under the title of tuberculoses of the sterno-clavicular articulation, and the fact that in Mr. Maunder's cases one of the patients died of phthisis and two had been troubled with cough, would suggest that the disease may also have been tubercular in them.—*Lancet*, Nov. 25, 1876.

The Antiseptic Method.—The following succinct statement of the way in which the antiseptic method may be carried out is from the advanced sheets of a *Manual of Operative Surgery*, by Dr. Stephen Smith. There should be at hand: 1. A vessel containing carbolic acid dissolved in water (1–40), for the immersing of the hands of the operator, the sponges and instruments used in the wound. 2. A steam-spray apparatus, capable of giving a cloud of vapor; make the solution of carbolic acid to be atomized 1 to 30, which diluted by the steam will give a 1 to 40 spray. 3. Antiseptic gauze, open cotton cloth impregnated with carbolic acid 1 part, common resin 5 parts, and paraffine 7 parts. 4. Mackintosh (fine cotton cloth with a thin layer of caoutchouc on one side, known in the shops as hat-lining;) gutta-percha tissue of good quality will also answer, but is liable to wear into holes. 5. Drainage-tubes (India-rubber, with a silk ligature attached). 6. Oiled-silk protective (oiled-silk coated on both sides with copal varnish, and afterwards brushed over with dextrine); when the copal varnish has dried, a mixture of one part of dextrine, two parts of starch, and sixteen parts of carbolic acid is brushed over; the acid soon evaporates. Common oiled-silk, smeared with the oily solution, will answer the purpose pretty well, especially if used in two layers. 7. Carbolized catgut ligatures.

If the wound is accidental first wash the cut surface thoroughly with a saturated watery solution (1–20); if the wound is made by the surgeon: (1) shave the part in order that the antiseptic may not be prevented from acting upon the skin; (2) wash the part with a watery solution (1–20), to purify the skin; (3) direct the spray upon the part, and maintain its action and position during the entire operation and dressing without a moment's interval; (4) immerse the hands, instruments, and sponges in the 1–40 solution before operating, and at every interval of the operation when they are not enveloped by the spray; (5) tie all vessels with antiseptic catgut and cut the ligatures at the knot; (6) place the drainage-tube or tubes so deeply in the wounds as to drain all accumulating fluids; if the tube enters obliquely, cut the outer extremity obliquely; lay the retaining threads on the surface; (7) if the wound is to be closed, as after amputation, use carbolized silk for sutures; (8) if strapping is required, common adhesive plaster may be rendered antiseptic by dipping it for a second or two in a watery solution of the acid, and it is most convenient to have the solution hot; the ends should be overlapped by the gauze; (9) apply to the cicatrizing part a layer of the oiled-silk protective dipped in the watery solution, and having a hole for the drainage-tube; (10) apply eight layers of the gauze of such size as to cover all the wound and the adjacent parts; dip the first layer in the solution; between the two last layers place a piece of mackintosh of smaller size than the layers of gauze; apply the last layer so as to cover in completely the mackintosh; (11) retain the dressings by bandages of the antiseptic gauze. Inspect the wound on the following day, and change the dressing only in case the discharge is liable to extend beyond the edge of the folded gauze; during the subsequent progress of the case leave the gauze undisturbed for periods varying from two days to a week, according to the diminution of the effusion. In re-dressing, continue the spray uninterruptedly on the part; while the bandage is being cut or removed, the patient or an assistant keeps his hand over the site of the wound, to prevent the dressing from rising *en masse*, and pumping in septic air; in raising the folded gauze take care that the spray passes into the angle between it and the skin; remove the drainage tubes, cleanse them in the carbolic-acid solution, and before reintroducing them cut off such portions as the granulations in the wound render necessary to bring the external extremity flush with the surface of the skin; lay aside the gauze which is soaked, but use the mackintosh again after cleaning it with carbolic-acid solution.—*Boston Med. & Surg. Journal*, Dec. 7, 1876.

The Histology of Sheep-pox.—At a meeting of the Royal Society in June last Dr. Creighton, who has recently been employed in researches relative to cancer, showed that appearances similar to those that Dr. Klein had depicted as belonging peculiarly to the virus of ovine-pox, and supposed to be parasitic, were obtained abundantly in healthy tissue. In a note, read at the same time, Dr. Klein accepted the explanation. It was said that there was large justification for regarding the albuminous coagula, for such they were, as specific organisms. The filamentous, branched and knotted appearance which they gave was very like that of an organic growth. In many instances also they met and formed a network. The microphytic theory in relation to ovine-pox may therefore be regarded as disposed of for the present.

Spina-Bifida treated by the Iodo-glycerine Solution.—Professor Morton, of Glasgow, adds another successful instance of injecting the tumor in

spina-bifida with the iodo-glycerine solution. The malformation was in the lumbar region, the sac the size of an ordinary peach, and not very full. The operation was done a few weeks after birth, the method being puncture and injection of about half a drachm of the solution; very little of the serous fluid was permitted to escape. Collodion was applied to the opening, over which was also placed a square inch of lint dipped in collodion, so that the wound was effectually closed. As shrinkage of the tumor was slower than anticipated, another puncture was made twelve days after the first operation, though in this case only a few drops were injected. A month later it was reported that the child was doing well, and the tumor had shrunk; and though the skin covering the centre was bluish for the breadth of a shilling, it was firm to the touch. This case is said to have been the fourteenth in which this treatment has been used, and eleven of them have been successful. Prof. Morton has found it uniformly successful in all the lumbar cases he has treated.—*Lancet*, Dec. 2, 1876.

A Double Autosite.—An interesting case of double monstrosity is reported by Dr. Berjoan, of Cairo. The parents of the monster are healthy Bedouins; the mother, after giving birth successively to five children, who are all living and healthy, was delivered of the monster on the 6th of last August. It possesses two heads, two thoracic cavities, each containing two lungs and a heart normally situated, with a single abdomen and a single umbilicus. It possesses also four well-formed arms and three legs, two of which are slender but well formed, while the third is rudimentary. The foot of this last leg is deformed. At the base of the abdomen there is a small caudal enlargement, presenting at each end a small, round opening. One of these openings gives exit to the fæces, and Dr. Berjoan thinks that the other is probably the orifice of a vulvo-uterine canal. The parents would not allow an exhaustive examination to be made. The exploration, however, incomplete as it was, showed that the respiratory and circulatory functions in the two trunks are entirely independent, and that the two individuals, after performing separately all the acts of nutritive life, find a common existence in the abdomen and in the excretion of the fæces and the urine. The monstrosity was twenty-one days old when seen by Dr. Berjoan, and the two infants were then in the enjoyment of perfect health. They nursed, cried, and slept perfectly well, independently of one another.—*Le Mouvement Médical*, November 4th.

Sealing of Compound Fractures with the Compound Tincture of Benzoin.—Mr. Bryant, of Guy's Hospital, has been treating fourteen consecutive cases of compound fracture by closing the wound as soon as possible after the accident, with lint saturated with the compound tincture of benzoin. The results obtained have been almost uniformly satisfactory. In one case where the injury was produced by the kick of a horse, the fracture was at the junction of the middle and lower third of the limb. A piece of bone projected through the lacerated wound, and there was much contusion. The dresser, Mr. Peacock, at once reduced the fracture, and closed the wound with several pieces of lint saturated with the compound tincture of benzoin, and then swung the limb upon suitable splints. No pain or constitutional disturbance followed. When the lint was removed on the 25th day, the wound had completely healed and the fracture was united. Three other consecutive cases are given, in all of which good results followed. In the second case, the dressing remained undisturbed for twenty-seven days, and on being removed the wound was healed and the bones were consolidated. About three weeks later he left the hospital with a good leg.

The third and fourth cases are much of the same character, in the one instance the dressing remaining in place twenty-six days, and in the other sixteen.—*Lancet*, Nov. 25, 1876.

Urethral and Vesical Manifestations of Rheumatism.—In a paper on this subject, M. Guillaud maintained that rheumatism may excite urethral discharges, inflammation of the neck of the bladder, and spasm of the bladder. In 1866, M. Peter asserted that the *facility* with which blennorrhagia is produced in some persons, and the *repetition* of the same affection in others, depend upon the rheumatic diathesis. In these cases the affection is a *rheumatismal blennorrhagia*, and not a blennorrhagic rheumatism. M. Guillaud stated, in the first place, that urethritis in rheumatic individuals has a great tendency to run a protracted course, and often yields only to the alkaline treatment. Then he cites well-authenticated cases which show the development of urethritis in rheumatic patients, when there was no possibility of contagion. Sometimes the rheumatic manifestations showed themselves first in the urethra, sometimes first in the joints. In the latter cases it is necessary to admit that the urethral mucosa is attacked secondarily by the rheumatic poison, just as all the other tissues of the body may be secondarily attacked. These facts have an important bearing on the question of treatment, for they prove that many cases of blennorrhœa whose long duration has exhausted the patience of both patients and physicians, may be cured by discarding local applications and treating the diathesis alone. All that has been said here of the mucous membrane of the urethra applies also to that of the bladder.

To sum up, a gonorrhœa, just as any traumatism or any disturbance of the organism, may awake a slumbering rheumatic diathesis, and lead to fresh attacks of the joints; on the other hand, rheumatism may, independently of any other cause, produce urethritis, cystitis, or muscular contractions of the bladder; it may affect the mucous membrane and muscles of the genitals, in the same way as it affects the mucous membrane of the pharynx and the muscles of the body in general.—*La Tribune Médicale*, November 12th.

Acute Idiopathic Peritonitis in Children.—The following are the conclusions of a paper on this subject by M. Gauderons:

A variety of peritonitis is met with in children, which may be called acute, essential, or idiopathic peritonitis. This peritonitis is usually general, but in some few cases is circumscribed, a more or less extensive portion of the peritoneum being involved.

It affects little girls much more frequently than boys, but is not exclusively confined to them.

It is excited by exposure to cold, or by excessive muscular action, and is especially prone to attack children between five and twelve years of age.

It may terminate in suppuration, but although the case is then very grave, it is not entirely hopeless. In fact, the pus may make its way out through the umbilical cicatrix, and in that case recovery may be looked for. It is evident from this, that suppurative peritonitis is less dangerous in the child than in the adult.

Phlegmon of the abdominal walls, or subperitoneal phlegmon, is the affection with which it is most likely to be confounded.—*La Tribune Médicale*, November 12th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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CHLOROFORM AND DENTISTRY.

THE mere announcement of another death from chloroform has of late become so frequent that, unless some new pathological changes are noted in connection with it, or some important lesson can be learned in regard to the prevention of an accident which is always deplorable, we are too apt to pass it over as a simple fact, which may possibly be of some value to the statistician. The association of the accident with the mere extraction of a tooth does not tend to raise it above the level of tame and commonplace occurrences. In fact, we have become so accustomed to look upon the two circumstances in the relation of cause and effect, that we cease to wonder at it, and our appetite pales at promise of a recital of details.

The recent death, at Rahway, N. J., is, however, of a character which may prove of more than ordinary interest in connection with some of the circumstances attending it. At least, it can do no harm to remind ourselves of the oft-repeated warnings concerning the danger of chloroform at a time when such an example of their significance is still fresh.

In another column we present a full account of the case. The manner in which the accident was produced, and the culpable want of care in preventing it, are matters which not only throw the most serious reflections upon the judgment of the dentist, but lay him open to the charge of actual criminality. There can be no doubt that death was due to the use of chloroform in this case; it is equally certain that chloroform should not have been administered at all; and it is also apparent that the person who assumed the responsibility of the administration was thoroughly incompetent.

In regard to the use of chloroform in dentistry there is but one opinion, namely, that it is always dangerous. As a general rule, it should never be administered at all for purposes of tooth extraction. In the present state of professional opinion upon the subject, the dentist who chooses to administer it even in a special case, assumes a responsibility of which he should not be ignorant. So great is the prejudice against this anæsthetic among leading dentists, that many will not allow it to be administered in their offices, even when the direct professional responsibility is assumed by an experienced physician.

Although the fact cannot be very well explained, chloroform has taken more victims from the dentist's chair than from any other place. Indeed, it has gained its reputation as a dangerous article more in connection with simple tooth-drawing than with any other operation, however grave or formidable. A very good reason for the liability to accidents is the erect position of the body of the patient while in the operating chair. Taking this into account, authorities are unanimous in advising that chloroform should never be given except the patient is recumbent.

In the Rahway case the dentist not only defiantly violated the rule never to administer the anæsthetic for tooth-drawing, but he neglected all the usual precautions to guard against an accident. No surgeon cares to assume the responsibility of giving chloroform unless he knows that the stomach of the patient is empty, that the circulatory apparatus is in good condition, and the lungs free from disease. A previous inquiry into these conditions is as much a part of the administration of any anæsthetic as is the placing of the napkin to the nose. It appears in the case before us that all these preliminaries were neglected. The patient came into the office immediately after having eaten a hearty meal, and, without any questions being asked, was at once placed in the operating chair. There was no loosening of waistband or shirt-collar, no examination of the chest—in fact, nothing was done except to order the little fellow to take long and deep inspirations, while the napkin was held closely against the nose. The result could have been easily foreseen. The overwhelming effects of rapid anæsthesia and the crowding impediment of a full stomach, in the most unfavorable of all positions of the body, did not invite death in vain. It would seem that the actual extraction of the tooth was done when the patient was already dead, or, at least, *in articulo mortis*.

The examination of the bodies of patients dying from the effects of chloroform have not thus far given us any satisfactory pathological explanation. The lesions have varied with each individual case, and have given rise to as many different theories. The careful and thorough examination of the body of the victim of the Rahway tragedy still leaves the question an open one. From a study of the pathological appearances, and from a personal inspection of all the organs examined, the most reasonable theory which offers itself to our mind, is that death occurred as the result of a direct operation of chloroform upon the nerve-

centres, inducing paralysis of the heart. Although there were marked evidences of asphyxia, they were not complete enough to impress those who were present with primary importance in regard to the cause of death. We are aware that in cases of death by paralysis of the heart, both ventricles are usually filled with blood, and that in asphyxia only the right side of the heart is in that condition; but the circumstances of the case may, in the absence of what appears to be a better explanation, render the theory of asthenia still reasonably tenable. At the time of death, both cavities of the heart may have been distended, and the subsequent and prolonged application of galvanism to the precordia may have induced a sufficient amount of post-mortem contraction of the heart-muscle to have emptied the cavities. The left ventricle being, for obvious reasons, the one most strongly acted upon, might satisfactorily account for its being entirely empty while the right side still contained some blood. Or, if we wished to carry our theorizing further, we might suppose that both ventricles were entirely emptied after death, and that the dark fluid in the right ventricle was the result of regurgitation. It may be, however, that both asphyxia and asthenia operated together in producing the effect; but the precedence which should be given to either involves the discussion of some questions for which, in the present state of pathology regarding deaths from chloroform, we are not yet prepared.

THE RELATION OF SURGEONS TO DUELLISTS.

THE ridiculous duel, the account of which has so recently engaged the attention of the public, has some interest to the profession, in regard to surgical attendance. Generally speaking, a surgeon's business is understood to confine itself to the care of his patient. He is, in fact, a non-combatant, and does not pretend to assume any responsibility as to the cause of any accidents, in peace or in war, which render his services necessary. In the legitimate exercise of his functions he is always understood to be a law-abiding citizen, ready and willing to give assistance to any one who may need it. The attendance upon a duel, however, involving as it does an understanding that a flagrant violation of law is contemplated—that a deliberate murder may be committed—throws upon the surgeon so engaged an amount of responsibility which, in justice to his brethren, he has no right to assume. In fact, his consent to act in this capacity not only involves a sacrifice of good judgment, loyal citizenship, and professional respect, but in the eyes of the public and the profession he degrades himself to the level of a tacit abettor to a crime. In view of our opinion upon the subject, it is with pain that we record the fact that a respected member of the profession of this city so far forgot his personal and professional obligations as to give any countenance to the proceeding.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Dec. 12, 1876.

DR. C. K. BRIDDON, PRESIDENT, IN THE CHAIR.

DR. HEITZMANN reported the case of polypus of the rectum, presented by Dr. Lewis Smith, to be adenomatous in character.

THE SAND-WORM AS A STOMACH PARASITE.

DR. FLINT presented the following report from Dr. Dalton, in regard to the specimen of worm presented at a previous meeting, which was reported to have been discharged from the mouth of a female:

NEW YORK, Nov. 23, 1876.

DEAR DOCTOR:—The specimens which you gave me are fragments of a *nereis*, an articulate animal belonging to the class annelida. It is not a parasite, but lives under the sand of sea-beaches, below high-water mark. Its common name is *sand-worm*, and it is used by the fishermen as bait for bass and tomcod. I send you an entire specimen, and also a few living worms in moist sand, which I purchased at a shop in Eleventh avenue, at the rate of one dollar per hundred. You need not be at the trouble of returning me the specimen.

Yours truly,

J. C. DALTON.

PENTASTOMA CONSTRICTUM.

DR. FLINT also exhibited a specimen of pentastoma constrictum, which had been sent to him by Dr. M. M. Campbell, of Albany, Gentry Co., Mo., who furnished the following history:

J. R. Robinson, aged 36 years, farmer by occupation, and served three years in the army during the war, applied to me in September last for examination, with the following story: Said that he had been very bad with an acute attack of pleurisy or pneumonia in March or April last (when I was at Bellevue Hospital Medical College, N. Y.); the physician who attended him said it was pneumonia, and that he was left weak and reduced very much in flesh, and came to me for treatment. I examined him and found a large vomica in the apex of the left lung, and dulness over a large area. The night before he came to me he said something had burst in that lung, and that over a quart of offensive matter run out of his mouth and nearly choked him, and since then something has continued to break and discharge about once every one or two weeks, and always at night—near morning. Since I saw him, in September, he has lost flesh rapidly, and there are now two large cavities in the lung and considerable effusion into the pericardium, while that lung is very tender on percussion. The liver is considerably enlarged (very much), and the bowels seem bloated all the time, and have not decreased in size with the rest of the body, and when stripped he looks like an emaciated child with bloated belly; he is sallow, his appetite is poor.

About a month ago he commenced coughing or vomiting up these parasites, and for ten days he ate nothing and was very weak; he said that they gagged him when coughing, and my presumption is that they came from the large cavity in the apex of the left lung, but I feel sure that his liver is also full of them, for it is much enlarged and very tender on percussion. Altogether he has coughed up from 75 to 100 of them, and they would crawl around the floor like a

naggot, and live for ten days in a bottle. They also stand freezing, for during the late cold snap, when he spat them upon the floor during the night, and the mucus and matter froze on the floor, when the fire was kindled in his room in the morning and the spittle thawed, they would then crawl around the floor. The sound of the gurgling in his lung has a distinct metallic tinkle, only finer, more resembling the tinkling of china-ware. I will send you the specimen securely bottled, to-morrow, to Bellevue Hospital Medical College, and I think it very probable that I will soon obtain more; and if a post-mortem can be obtained after a time, I will try hard to get permission to examine the diseased organs.

Following the presentation of the case, Dr. Flint read several extracts from Aitken's Practice, describing the parasite in question in connection with an account of the case of Private Isaac Newton (vide Aitken, vol. i., 194).

Dr. E. Mason exhibited a boy, aged seven years, upon whom he had performed the operation of exsection of the internal scaphoid and middle cuneiform bones, with a portion of the metatarsal bone of the great toe of the left foot. There was good motion in the ankle-joint, the wound was healed, and there was but slight tenderness on pressure. The following is the history of the case:

Dannie Lanaham, aged seven; United States; admitted to Bellevue Hospital Sept. 12, 1876. Previous history presents nothing of importance. No family cachectic or syphilitic taint. The injury appears to be ascribed to the foot having been caught and bruised by a shutting door. For three weeks after the patient scarcely complained, and was able to run about as usual. The first appearance of trouble was a small vesicle below the instep, which was pricked. A few days after erysipelas of the foot and leg set in, and patient was sent to Bellevue Hospital. The foot at this time was swollen and very painful, with a large suppurating opening on the inner side of the foot, corresponding to the internal cuneiform bone, through which the probe could be made to pass in every direction under the skin. No necrosed bone was made out. Treated with lead and opium. Sept. 20th.—The erysipelas has disappeared, and patient removed from pavilion to ward. Sept. 26th.—Other abscesses have shown themselves on different parts of the foot, and all communicating with each other. Was seen by several of the visiting surgeons. No necrosed bone can with certainty be made out, though the general appearance indicates pretty conclusively that dead bone is present.

27th.—*Operation.*—Under ether, dead bone was detected. At the clinique to-day Dr. Mason enlarged the opening over the internal cuneiform, and removed the scaphoid and internal and middle cuneiform, with the head of the metatarsal bone of great toe. A seton drawn through the incision and an opening over external cuneiform; no hemorrhage. 28th.—Foot and leg enclosed in an immovable plaster-of-Paris splint, with fenestra over arch of foot. Oct. 11th.—Always irrigated with carbolic acid water and dressed with balsam and picked lint. Oct. 30th.—Foot doing very well; same dressing. Nov. 15th.—Wound nearly closed. Nov. 21st.—Silicate soda splint applied; wounds finally closed. He is now able, when splint is removed, to place his foot firmly on the floor without pain. The color about the old wound is still somewhat bluish, but the cicatrix is firm.

EXSECTION OF HIP.

Dr. Sayre presented the following cases: R. M. Patter, of Newport, R. I., aged seven; of healthy parents, and always an active, healthy child until four and a half years of age, when he was thrown from his hobby-horse, striking on his left hip, causing intense pain, which was followed by an acute inflammation of the hip-joint.

He was blistered repeatedly for eighteen months, and under the constant influence of bichloride mercury and bark; but *no extension was made to the limb.*

Abscesses formed, which opened near the pubis and on the outer part of the thigh, which discharged profusely, and the limb became strongly adducted and flexed

He was sent to me by Dr. Sands in October, 1875, and by extension and proper treatment was so much relieved that for some months hopes were entertained that he might recover without exsection. But the discharge continuing so profuse, and the probe detecting so large a mass of dead bone, that by the advice of Dr. Alfred C. Post, who saw him in consultation with me on the 20th of November, 1876, I performed exsection on the 23d of November, 1876.

The bone was sawed off just at the trochanter minor. The head and most of the neck were absorbed, and the acetabulum perforated.

The operation has been performed three weeks, during which time there has not been as much discharge as there was in one day before the operation, and he is improving rapidly.

Henry Herman, San Francisco, Cal., aged six years. Father very strong and healthy; mother delicate. Child always healthy, but not very strong. Two years since fell over a chair, and complained very much at the time of pain in his left hip. Was seen by several physicians, who thought the trouble was rheumatic. Was rubbed with liniments, etc., for six months.

An abscess formed, which was opened about five inches below trochanter major, and has continued to discharge profusely ever since.

He is now much wasted, has hectic, and is failing rapidly. Exsected hip at Bellevue Hospital, Dec. 13, 1876. Femur sawed off just below trochanter minor. Head and portion of neck absorbed, and acetabulum perforated.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 21st, 1876.

Dr. S. S. Purple, President, in the Chair.

REPORT UPON YELLOW FEVER AS IT OCCURRED IN SAVANNAH, GA., 1876.

Dr. Octavius A. White read a concise and interesting report, which embraced the results of his observations made while rendering volunteer medical service among the people of that city.

"Epidemics are nature's protests against the violation of her sanitary laws."

It was maintained that the portability of yellow fever germs had never been disproved; that experience had proved that cities extremely liable to its visitation, could enjoy an immunity from it by a rigid enforcement of quarantine; and that the germs of the specific form of the disease had, without exception, been imported to this country when it had made its appearance among us. In the present instance, its ingress was traced directly to vessels which had lately arrived from the West Indies.

CONDITIONS FAVORING THE EPIDEMIC.

The city of Savannah was so situated that its drainage was defective, and a great deal of the rain-fall

was obliged to pass off by evaporation and absorption, and it was surrounded on every side by vast tracts which required unremitting attention to prevent them from lapsing into septic sources of miasmatic emanations. The city was surrounded by such local influences as would at any time during the summer permit of the development of yellow fever, if the specific germ of the disease was indigenous; but it had often escaped this pestilence, while in a near city it had raged with unabated fury.

By some, Savannah had been placed in the so-called yellow-fever zone; but a critical review of the health record of the city, it was believed, established the fact that no other urban locality on the Atlantic coast enjoyed a superior reputation for general salubrity. To-day the city presented an unsolved problem to every disbeliever in the exotic origin of yellow fever in this country.

Dr. White admitted that the conditions were present favorable for the development and spread of the disease when the germs had been transported thither, but he was not prepared to concede, with the light of the experience he had, that the city was in a zone capable of generating independently the specific poison upon which such an epidemic depended.

The same was said with reference to Charleston and other cities lying within a latitude liable to high range of temperature during three months of the year. It was believed that the experience had, in the season of 1876, established more firmly the theory of the exotic origin of the disease; and the history of no epidemic in this country seemed very clear, without the inevitable mention of a ship from some infected port.

During the early spring and summer of 1876, all the conditions and influences within and surrounding Savannah seemed to be favorable to the development of miasmatic diseases to an extraordinary degree. The average temperature for the month of June was 80.56° F.; the rain-fall, 18.80 inches; and the total number of clear days, 14.

For the month of July the mean temperature was 84.5° F.; rain-fall, 6.11 inches. The direction of the prevailing wind for both these months was southwest, and from over an undoubted malarial region.

There was no marked abatement in the heat during the month of August, as the mean temperature was 84.1° F. The rain-fall was 6.88 inches; the prevailing wind from the south.

The weather favored the dissemination of malarial germs, and the continued calms by night and day permitted their accumulation and concentration.

On driving through the streets of the city, nothing inimical to health presented itself; but it was manifest, upon close inspection, that numerous neglected privy-vaults nightly tainted the air with toxic exhalations. Besides those, there were what were called "dry wells," which were nothing more nor less than receptacles for human excreta; and close to the city limits were the dumping grounds of the scavengers; and, in addition, there was the Bilbo Canal, teeming, as did its tributaries, with putrescent refuse. The wide, stretching netherlands had, from neglect, been exposed to frequent overflow and saturation. About three-fourths of a mile from the eastern portion of the city was a wharf which was the constant recipient of relays of blue clay from the coast of Cuba, in the immediate neighborhood of Havana.

Such a combination of favoring conditions and circumstances could hardly fail to create an epidemic.

FACTORS OF THE EPIDEMIC.

The epidemic, therefore, which prevailed at Savannah during the season of 1876, was the combined product of three factors: 1, ochlesis; 2, miasma; 3, the specific germ principle of yellow fever. Those factors gave rise to a disease that prevailed pandermically, and certain persons had a second attack, which, in some instances, proved fatal.

When Dr. White arrived at Savannah the pandermic was at its height. The general character of the disease reminded him that he had to deal with the form of affection described by Aitken under the head of "malarious yellow fever."

Upon the announcement that yellow fever was prevailing in the city, a considerable number of the residents went into the healthy sections of the adjacent country, and from there continued to visit the city daily and transact business, being careful to avoid the affected districts after sundown; and, without other precaution, it was said that they escaped the disease.

MODE OF INVASION AND SYMPTOMS.

Although the disease had its origin in the three factors mentioned, the mode of its invasion did not differ in any material respect from that so often described in less marked epidemics. The accession was rarely without premonition; giddiness, loss of appetite, tendency to sweat upon slight exertion, and flatulence were the common premonitory symptoms. The small hours of the day and night marked the period of onset. Every case began with a chill more or less marked; scorching fever immediately followed, bearing, however, no harmonious relation to the chill. The stomach was generally the first organ to sympathize, and distress with nausea, and sometimes vomiting, occurred. The suffering in the head, commonly limited to the brow, was not unfrequently referred to the course of the longitudinal sinus. But few cases presented delirium, though the countenance of each patient wore a distressed aspect; the face was flushed and turgid; the eyes were watery, heavy, and injected, and there was often tenderness to the touch, with intolerance of light; the respiration was hurried and often interrupted by sighs. Epistaxis occasionally occurred, to the great relief of symptoms; but the issue of the case invariably showed that such loss of blood was not favorably borne. Of all the torturing symptoms the patient was called upon to endure, spinal aching was the most intolerable. All the early symptoms appeared to result from a state of venous repletion. That peculiar condition formed a characteristic and enduring complication throughout every stage, quite up to convalescence, and accounted for many of the dangerous determinations which persistently threatened and retarded convalescence and ushered in fatal cases.

The tongue was usually moist, pale, swollen, and indented. The development of gastric irritability was foreshadowed, not by preternatural redness about the tips or edges, with coating, as often as by a marked tendency to dryness and pallor.

The efflorescence, said to occur about the head, neck, face, chest, and back, though searched for, was not apparent during the epidemic.

No case during any stage of the disease, or even after death, presented the noted and characteristic orange hue of the skin, as seen in some epidemics. The skin was dry, hot, and harsh, and often resisted, for a long time, the effect of counter-irritants, such as croton-oil and blisters.

When black vomit occurred, it was invariable after the subsidence of the fever and during the period of calm. That symptom, it was remarked, more commonly appeared upon the decline of the first stage.

By far the most remarkable symptom which pre-nted itself during the epidemic was total blindness ith dilatation of the pupils. It was present in only ;o cases; in one of those the disease proved fatal, hile in the other recovery took place, and the eye-ght was completely restored.

The pulse was not usually as frequent from the com-encement of the attack as the state of the respira-on and temperature might warrant.

Within one hour after the reaction from the chill, e thermometer frequently registered from 102 to 104 . The temperature was taken under the tongue or in e rectum. The same want of correlation between e range of temperature and pulse, which had been ted by Dr. White in previous epidemics of yellow ver was strikingly repeated during the one under nsideration. The pulse and heat of skin, as noted crude touch, commonly indicated an entire subsi-nce of the paroxysm within twenty-four or thirty-x hours; but the thermometer, like a cautionary signal danger, showed that an elevation of temperature as present throughout the period of calm. The pulse, ndition of the skin, and other symptoms, often indi-ted complete defervescence of the fever; but at the me time the thermometer rendered it apparent that e paroxysm was at its height. In the event of any angerous complication, the thermometer rose sud-enly and rapidly, and in two cases 107⅘° F. was eached, and yet the pulse remained at about 100.

The thermometer always afforded the first reliable nformation regarding approaching danger or convа-scence. According to the thermometer, the duration f the first, or febrile, stage did not exceed four days, mmonly about three; and the second stage rarely sted more than twelve hours. Patients, under the eatment instituted, ordinarily glided so insensibly rough the second stage into convalescence that it was nly by aid of the thermometer the line of demarcation ould be ascertained.

MIXED CHARACTER OF THE EPIDEMIC.

The mixed character of the epidemic was indicated y the following facts: By the remarkable mortality mong the negroes; by the singular fatality attend-ig cases which occurred among inured natives and her inhabitants who, from acquired acclimation, had rdinarily escaped the infection from yellow fever poi-on alone; by the unusual percentage of deaths which ecurred among children under twelve years of age; y the modification which ensued in the virulent char-cter of the pestilence after the occurrence of rains fficient to wash out the drains; by the abatement in e malarial element of the disease after light frosts round the limits of the city.

TREATMENT.

The fever, inflammatory at the commencement, be-ame typhoidal when under way; hence great care was xercised to exclude all remedies which had depress-ng tendencies.

The general plan of treatment was as follows—de-iation being made to suit certain contingencies:

Absolute rest in the horizontal posture was enjoined; e patients not being permitted to rise from their pil-w for any purpose.

Strict abstinence from food was enforced through-ut the first stage; occasional mouthfuls of seltzer-ater were allowed, and pellets of ice were allowed ithout stint.

When the patient was seen early after the seizure, a ot turpentine foot-bath was ordered, and ice applied the head.

The medicinal treatment was invariably commenced by administering a single powder, made up as follows:

℞ Calomel,
Sodæ sup. carb.....ℨß gr. x.
Quinia Sulph.....gr. xx.
M.

That combination never failed to bring about, within a reasonable length of time, one or two moderately consistent evacuations from the bowels, and bilious in character. There was no tendency to hyperpurgation as the result of the dose, but, on the contrary, enemata were sometimes required throughout the subsequent management of the case. The effect of the powder was to diminish the frequency of the pulse within from six to eight hours, without a correspondingly prompt abatement of the temperature. Frequent spongings of the entire body with tepid water were grateful.

The backache was always promptly relieved by the steady application, over the loins, of flannels steeped in whiskey and laudanum. As soon as the pain in the back was subdued, croton-oil was applied over the region of the kidney; such action was undertaken, under the belief that those organs suffered from the very commencement of the fever.

Four hours after the administration of the first powder, ten grains more of dry quinine were placed upon the tongue with a pellet of ice, and such dose was repeated every two hours during the continuance of the first stage. As long as the temperature continued to rise, or maintained a steady high rate, the quinine was persisted in; but as soon as any tendency to decline in temperature was noted, the quantity was diminished one-half, and camphor, for its diffusive stimulant and sudorific effect, was given in combination with it every four hours; and the two were continued until the thermometer indicated a normal temperature.

If the quantity of quinine was reduced too soon, the temperature and pulse were certain to rise; and it was always singularly difficult to bring them back to the point of departure. The quinine did not seem to disturb the stomach; but, on the contrary, when nausea supervened the persistent administration of it alone would quiet that viscus—a result which the doctor was inclined to attribute to the fact that the alkaloid was a basic compound, and therefore consumed the peculiar acid known to be so abundant in the stomach throughout this fever, and which prevented not only the direct source of irritation, but largely entered into the composition of black vomit. In no case was the purgative effects of quinine, spoken of by some, noted. In no stage of the disease did ammonia compounds agree. The system seemed to be surcharged with that alkali.

The treatment, when instituted early, invariably tended to shorten the duration of the first stage, and very materially modify the severity, if it did not prevent, the succeeding stages. In cases presenting hurried and oppressed breathing or sighing, the surface of the thorax was bathed with a liniment composed of croton-oil, chloroform, and turpentine, and repeated every three hours until some redness of the skin was produced.

Opium in all of its forms was regarded as dangerous, and never given until convalescence was fully established, and then only in great moderation.

After the first stage purgatives were not administered, and laxatives of the blandest character, in the form of enemata, only were employed.

The slightest tenderness upon pressure over the epigastrium, or eructations after the first thirty-six hours,

were regarded as definite indications for the use of blisters, which were at once applied over the entire abdomen. In case hemorrhage threatened to take place from the blistered surface, it was controlled by dressings of tissue-paper, with tannin or persulph. ferri ointment.

Stimulants were administered very early and throughout the progress of the case, and were essential during convalescence.

Every case which presented torpor of the capillary circulation, at the commencement of the second stage, was put upon the use of turpentine emulsion, with or without camphor, and the results were favorable.

When evidences of decline appeared, as indicated by the pulse and temperature, nourishment was cautiously administered in the form of thin chicken broth or beef-tea; it was given in teaspoonful doses at regular intervals. Milk invariably disagreed, even when combined with lime-water. All starchy compounds were forbidden, as they predisposed to flatulence. Especial attention was paid throughout to the function of the kidneys; ordinarily they caused but little anxiety. The urine was frequently diminished in quantity about the first day; and in two cases suppression caused alarm, by persisting over sixteen hours.

The doctor saw three deaths from collapse.

Black vomit was rarely seen, and those exhibiting it recovered with the rest, though more slowly. Convalescence was materially accelerated by the use of the muriate tincture of iron. Dr. White's paper being open for discussion—

Dr J. C. Peters inquired with regard to the probable character of the epidemic, providing importation of the yellow-fever germs had not taken place. Malarious yellow fever was not always distinguished from specific yellow fever; an important distinction, for the reason that one was probably not so infectious as the other.

Dr. White replied that probably the epidemic would not have been so virulent, nor affected so many. It might not have affected the negroes, but in the present epidemic they suffered severely, whereas they ordinarily escaped the malarious yellow fever. A malignant specific cause was engrafted upon the disease in the present instance, which, he claimed, was of exotic origin.

Dr. Peters made inquiry regarding the evidence of contagion; whether the disease was transmitted from one person to another through the exhalations from the body, or by means of articles of clothing, or through any of the excretions from the body, or whether it ran through families.

Dr. White replied that there was no evidence of contagion in the sense of communicating the disease from one person to another by direct contact; the cases in general rather showed to the contrary. The disease did not run through families, nor did it specially affect those who visited the sick, but rather struck down individuals who had been subjected to the three influences named.

In answer to inquiry, Dr. White stated that no post-mortem examinations were made. No deaths occurred when the treatment mentioned was thoroughly carried out.

After some remarks by Dr. A. N. Bell, the discussion was closed by Dr. Garrish, and the Academy adjourned.

Correspondents sending us papers will please mark the items to which they desire to call our attention.

Correspondence.

ERYSIPELAS AND PUERPERAL FEVER.

To the Editor of The Medical Record.

Sir:—Apropos to the discussions respecting the etiology of erratic erysipelas and puerperal fever, and the relations they bear to each other, I desire to record the following case.

Mrs. C., æt. about 37, a well-developed muscular woman, was delivered of a healthy child, in my presence, the afternoon of Feb. 16, 1876. I think this was her fifth confinement. At the time of her accouchement she was suffering from quite a hard cold.

There was nothing of special note in the case for the succeeding five or six days, except that she suffered considerably from a prolapsed condition of the rectum, which was the seat of small hemorrhoidal tumors.

Feb. 23d or 24th, she complained of soreness of extremity of the nose, to which I paid little attention, presuming it to be the result of her cold. Two or three days subsequently I was called again to see her. At this time there was marked swelling of the nose, accompanied with fever and severe headache. The case proved to be one of well-marked phlegmonous erysipelas, involving in its progress most of the face, one ear, and a portion of the scalp, lasting ten or twelve days.

There was no suppression of the lochia during the erysipelatous inflammation, at least not to exceed a portion of one day. I had attended no case of erysipelas for many months previous, neither do I know of other cases occurring under the care of other practitioners in this locality.

The interesting inquiry suggested by this case is, why did not this woman have puerperal fever?

Very respectfully yours,

Walter B. Chase, M.D.

Windham, Greene Co., New York, Dec. 11, 1876.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 31, 1876, to January 6, 1877.

Brown, J. R., Surgeon. To report in person to the Comd'g General Mil. Div. of the Atlantic, for temporary duty in the Medical Director's Office of that Division. S. O. 266, A. G. O., Dec. 28, 1876.

Bill, J. H., Asst. Surgeon. To report in person to the Comd'g Officer, Dept. of the South, for assignment to duty. S. O. 266, C. S., A. G. O.

Fryer, B. E., Surgeon. To report in person to the Comd'g General Dept. of the Missouri, for assignment to duty. S. O. 266, C. S., A. G. O.

Bentley, E., Asst. Surgeon. Leave of absence extended one month. S. O. 1, A. G. O., January 3, 1876.

Adair, G. W., Asst. Surgeon. Leave of absence extended 15 days. S. O. 1, Mil. Div. of the Missouri, January 2, 1877.

Crampon, L. W., Asst. Surgeon. Assigned to duty with 2d Battalion, 13th Infantry, New Orleans, La. S. O. 258, Dept. of the Gulf, Dec. 30, 1876.

By direction of Secretary of War, the Army Medical Board, convened in New York City by S. O. 149, A. G. O., July 10, 1874, is dissolved. S. O. 266, A. G. O. Dec. 28, 1876.

Miller, Geo. McC., Asst. Surgeon. His resignation accepted by the President to take effect January 1, 1877. S. O. 266, A. G. O., Dec. 28, 1876.

New Instruments.

A NEW ATOMIZER FOR USE IN ANTISEPTIC SURGERY.

By H. T. HANKS, M.D.,

NEW YORK.

At my suggestion and direction, Stohlmann, Pfarre & Co., 117 East 28th street, have constructed the apparatus represented in the accompanying cut. The stand,

boiler, and lamp correspond in design to the common atomizer, now so generally used for inhalation purposes, but are much larger. The open glass vessel for holding the antiseptic fluid has a capacity of one pint, and is held in position over the boiler in a shallow metal cup. The latter is made to move forward and backward by means of a thumb-screw which is attached to an erect rod, fastened at the base of the apparatus. The rod in the cut is necessarily concealed from view. There is a small stop-cock arrangement low down at the side of the glass vessel, thus regulating the amount of antiseptic fluid which flows downward to the atomizing points. The long metal arm, into which is fastened in the usual manner the glass or metal spray-producer, is attached to the boiler by a kind of elbow-joint, thus enabling the spray to be projected forward at any angle. The alcohol lamp has a large tube for the wick, and over this is a second tube which slides up and down by means of a ratchet. The handle of the ratchet is seen in the cut. It readily controls the size of the blaze, the degree of heat, and the amount of steam produced. Great care should be exercised in selecting a suitable atomizing point. With a proper point a coarse or fine spray may be produced, according to the amount of antiseptic fluid admitted through the stop-cock. The force of the spray will depend upon the *blaze*, and the consequent amount of steam; and the angle of the arm will regulate its direction.

The apparatus thus constructed will supply a suitable spray for a two hours' operation, as the antiseptic fluid can be replenished as required. I claim for it its portability, small size, safety, durability, and cheapness. The cost is about $15.00, and every way contrasts favorably with the Lister or Sass apparatus.

DECEMBER 18, 1876.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending January 6, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Dec. 30, 1876....	0	7	66	4	6	46	0
Jan. 6, 1877.....	0	9	82	2	9	43	0

DEATH FROM CHLOROFORM.—On Friday, January 5th, a death following the administration of chloroform occurred in the office of a dentist of Rahway, N. J. Walter E. Lewis, a lad aged 14 years, shortly after having taken a hearty supper, stopped in company with a younger brother at the office of a dentist in that place for the purpose of having a tooth extracted. He was accordingly seated in the operating chair, and the administration of the anæsthetic commenced without delay. An ordinary folded napkin was placed over his nose and mouth, and he was instructed to take forced and deep inspirations. After several of these had been taken, and a slight struggling had been controlled, the tooth was extracted, immediately after which there was a gasp for breath, a deep sigh, and the head of the boy rolled to one side and he was dead. The dentist, in alarm, left the boy in a sitting posture and ran for help. The nearest available help was Dr. Daly, but he being absent, Mr. Marsh, a student of his, answered the summons, and repaired to the place with a galvanic battery. It was not until his arrival, a period estimated at a quarter of an hour, that the deceased was placed in a recumbent posture upon the floor and any efforts made at resuscitation. Dr. Selover arriving shortly afterwards, resorted at once to artificial respiration, plied the galvanic battery, and administered hypodermic injections of ammonia, but all to no purpose. At the time he saw the child the pulse had ceased to beat.

An autopsy was held Jan. 8th, at the instance of the County Physician, Dr. F. B. Gillette, of Plainfield, N. J., assisted by Drs. W. Updyke Selover, H. H. James, John J. Daly, of Rahway, and Dr. A. Pettit, of Elizabeth, N. J.

The body was spare but well nourished. Cadaveric rigidity marked. On removing the coverings of the chest the muscles were found to be of a darker hue than normal.

The pericardial sac contained a slight excess of straw-colored serum. The heart was normal in size, the right ventricle showing the usual amount of adipose tissue upon its surface. The vessels of the heart were ligatured previous to removal, and on being severed a quantity of dark fluid blood escaped. The right ventricle was flaccid and contained about half an ounce of the same character of blood noted

above. The left ventricle was quite firmly contracted, and was entirely empty. No thrombi were found. All the valves of the heart were sufficient and healthy, and the muscular substance, on microscopical examination, was found to be free from fatty degeneration. The liver was of normal size but congested throughout, and both lungs were in the same condition, slightly crepitant on pressure, and discharging from the cut surfaces of the smaller tubes a frothy mucus.

The stomach was filled with a full and but partially digested meal, a portion of which found its way into the œsophagus by post-mortem gravitation. The mucous membrane of the organ was apparently healthy and showed no evidences of post-mortem digestion. The larynx and trachea were entirely free, as was also the fauces, which fact destroyed the probability of choking during any possible effort at vomiting. Both passages were, however, markedly injected with venous blood; the same was the case with the small intestines and kidneys, which otherwise presented a healthy appearance. The bladder was half full of urine. The peritoneum, except a slight congestion, was also normal.

The brain was carefully examined. Its substance appeared normal. Its surface shared, in the general, venous congestion to a slight extent. No abnormal amount of fluid was found in the ventricles.

Donations to Medical Institutions.—The will of the late Col. W. R. Vermilye bequeaths two thousand dollars to the New York Eye and Ear Infirmary, and one thousand five hundred to the Northern Dispensary, of New York.

The Albany Medical College.—The medical profession of Albany have been much exercised of late in regard to the management of the medical school of that city, and have divided themselves into two parties; one directly connected with the college, and one which represents the majority of the outsiders. The latter, representing the majority, are dissatisfied at the manner in which the professorships have been farmed out. When a few places are to be filled, and there are a number of aspirants for them, this is to be expected; but the manner in which the outsiders seek to revenge themselves is somewhat novel. The college, which is the property of the city, declares its inability to pay the rental, and maintains that an equivalent therefor is given by the number of students which it entices from different parts of the country, who leave their money with boarding-house keepers, and tradesmen generally. The remainder of the profession think it is a shame that the city should be thus swindled of its just dues, and in order to meet the emergency, have organized a new faculty, who propose to pay the full rent if the Common Council will place the buildings at their disposal. At last accounts the matter, as far as we can learn, was *sub judice*. It would seem, as a matter of policy at least, that the present faculty will discharge their pecuniary obligations at once.

Officers of the New York Academy of Medicine.—At the annual election, held Jan. 4, 1877, the following officers were elected: President, Dr. S. S. Purple; Vice-President, Dr. W. T. White; Recording Secretary, Dr. H. T. Hanks; Corresponding Secretary, Dr. J. G. Adams; Treasurer, Dr. H. P. Farnham.

Journal Prescribing.—Wishing to save any unnecessary trouble in the future, on the part of anonymous correspondents who ask for medical advice through our columns, we will simply state that we cannot, and will not give any such advice.

Metric Doses.—The following table, from the *Pharmacopœia Germanica*, exhibits the *maximum* doses, under ordinary circumstances, of the medicines indicated, and beyond which physicians in Germany are not allowed to prescribe unless they add the *caution-mark* (!), thereby indicating that the excessive dose is intentional:

	Pro dosi grammes.	Pro die grammes.
Acidum arseniosum	0.005	0.01
" carbolicum	0.05	0.15
Aconitinum	0.004	0.03
Argenti nitras	0.03	0.20
Atropinum	0.001	0.003
Atropini sulphas	0.001	0.003
Auri et sodii chloridum	0.06	0.20
Barii chloridum	0.12	1.50
Cantharides	0.05	0.15
Codeinum	0.05	0.10
Coniinum	0.001	0.003
Cupri sulphas	0.10	0.40
" " in divided doses as an emetic	1.00	——
Cupri et ammon. sulphas	0.10	0.40
Belladonnæ folia	0.20	0.60
Digitalis folia	0.30	1.00
Hyoscyami folia	0.30	1.00
Stramonii folia	0.25	1.00
Toxicondendri folia	0.40	1.20
Sabadillæ fructus	0.25	1.00
Gambogia	0.30	1.00
Conii herba	0.30	2.00
Hydrarg. chlorid corros	0.03	0.10
" biniodidum	0.03	0.10
" protiodidum	0.06	0.40
" oxid. nig	0.015	0.06
" " rub.	0.03	0.10
Kreosotum	0.05	0.20
Lactucarium	0.30	1.20
Morphinum	0.03	0.12
Morphiæ acetas	0.03	0.12
" sulphas	0.03	0.12
" hydrochloras	0.03	0.12
Tiglii oleum	0.06	0.30
Opium	0.15	0.50
Phosphorus	0.015	0.06
Plumbi acetas	0.06	0.40
Belladonnæ radix	0.10	0.40
Hellebori viridis radix	0.30	1.20
Veratri rhizoma	0.30	1.20
Santoninum	0.10	0.50
Strychninum	0.01	0.03
" nitras	0.01	0.03
Antimonii et potas. tart	0.20	1.00
Veratrinum	0.005	0.03
Zinci chloridum	0.015	0.10
" lactas	0.06	0.30
" sulphas	0.06	0.30
" " as an emetic, in divided doses	1.20	——
Zinci valerianas	0.06	0.30

Remembering that the above are MAXIMUM doses, we must direct attention to Strychninum and its nitrate, the doses of which, as given, appear to us to be *excessive*.

The condition of the streets of New York is simply deplorable. The heavy body of snow which fell recently has partially melted, and has become converted into a deep and disgustingly filthy slush; the car travel is impeded by frequent blockades; while walking for exercise and comfort, except in the upper portions of the city, is out of the question.

Original Communications.

A DISCOVERY IN PHYSICAL DIAGNOSIS.

By EDGAR HOLDEN, M.D.,

NEWARK, N. J.

In pursuance of investigation shortly to be published, with instruments designed for the earliest possible detection of disease of the lungs, a simple phenomenon has been noticed which cannot but prove of value in cases of uncertainty or obscure disease. I have been unable to find any record of a similar suggestion, and present it with cases, trusting that it may facilitate the early detection of phthisis, and thus increase the prospect of cure by medication.

A soft rubber tube, $\frac{5}{8}$ of an inch in internal diameter and 2 feet long, with simple end-pieces of thin metal, and of a diameter of $\frac{3}{4}$ inch, will, when blown into with a little force, produce a rushing noise at its extremity. The same sound is produced by forced inspiration. This is the instrument required. If the patient be made to respire through this, the ear of the physician being applied to the chest, and particularly at the supra-scapular space, this rushing sound is transmitted with clear resonant volume. Disease, however slight, exaggerates the sound, alters the pitch, or changes it in proportion to the solidity of the conducting tissues. Obliging the patient to hold the extremity of the tube away from the listener prevents distracting his attention from the transmitted to the real sound, as does of course also the closing of the free ear with the hand. A singularly magnified character is given to the respiratory murmurs, and the stethoscope is unnecessary. In thin persons, so great is the exaggeration of the natural sounds that, as with the stethoscope, comparison of the two sides may at times be requisite to prevent misinterpretation; but in local consolidations and small cavities it has proven invaluable. A few cases only are presented, and the device, for want of a more appropriate name, termed a "resonator," submitted to the profession, in the hope that it will do even more than is claimed for it.

Case I.—Geo. W——, æt. twenty-two, in good flesh and apparently robust health, presented himself November 17, 1876, with a partial aphonia of six months' duration; cough very slight, and symptoms entirely laryngeal. Upon laryngoscopic examination the larynx was found of a dusky red, the ventricular bands congested, and the true cords of a bright pink color. The capitula Santorini not enlarged, and no suspicion of other than a local difficulty present. Failure to improve under the treatment by sprays caused a careful thoracic examination to be made on the 25th, and the following notes were taken: "Left lung exhibits normal respiratory sounds; vesicular murmur unimpaired; percussion resonance normal. Right lung: clear vesicular breathing; expiratory murmur hardly audible and not prolonged; a shade of dulness at the supra-scapular space, and faint transmission of the cardiac sounds, but no râles, and only the slightest approach to a tubular character of the inspiratory current, behind the upper edge of the scapula; no wavy or jerky character detected.

Under ordinary circumstances a diagnosis of freedom from serious disease would be given, as it should be borne in mind that unusual attention was bestowed upon the examination for the purpose of using the resonator. Upon respiring forcibly through this, the right supra-scapular region gave hoarse, roaring rhonchus, creaking, and râles; that of the left being in comparison a soft and gentle murmur. Serious organic change, localized, but vital in character, was believed to exist, and this has since been verified by the symptoms of well-marked consolidation, softening, and distinctly purulent expectoration; the laryngeal appearances being now, Dec. 30, those of developing phthisis. The capitula Santorini are tumefied and somewhat œdematous, with a thin, purulent fluid exuding between them.

Case II.—Miss L. K., æt. twenty-four, a clear-complexioned young lady, weighing one hundred and forty-eight pounds, and the most unlikely subject for phthisis, came on the 8th of December with apparently a simple cold of a week's duration, hoarseness that common under such circumstances, and the feverish, aching discomfort no more than usual. Having on two occasions (Nov., 1870, and Dec., 1874) exhibited evidences of disease of the right apex, but without softening, she had become alarmed, and feared so severe a cold as now experienced would redevelop the difficulty.

The brief note of examination is as follows: "Dulness on right side posteriorly from the apex to the lower border of the infra-spinatus muscle; few sounds of any kind, and no râles. With the resonator sounds of old pleuritic adhesions are evident at supra-scapular space, exaggeration of *expiratory* sound and alteration of pitch, with a suggestive approach to crepitation over the whole of the upper third of the right thorax posteriorly; left lung sound."

The subsequent examinations need not be alluded to in detail. In brief, the old apex difficulty has become gradually definable as the congestion has subsided in other parts of the lung, and to-day (Dec. 31st), the cough, pain, and laryngeal symptoms are unmistakably those of consolidation and disease at the seat of former trouble.

Case III.—J. F. S., æt. 16, a tall but pretty well developed young man, came first under treatment as an office patient in June, 1876, with the following record copied, like the others, verbatim because of its brevity: "Cough for three months, short and irritable; pulse quick and cordy, 96; expectoration, yellowish-white; mother died of consumption two months ago; father suffers from chronic catarrh. Diagnosis, incipient phthisis—consolidation at the right apex; dulness, prolonged expiration, and occasional pain."

This case progressed favorably and seemed to recover until a "severe cold" supervened Dec. 1st, and the morning irritative cough changed to one severe and painful.

Thoracic examination Dec. 23d, although carefully made, seemed to disprove the former diagnosis, and the resonator was used with the effect of developing clearly an abnormal intensity of the bronchial breathing at the right apex above and posteriorly, but not under the clavicle; the expiratory sounds were morbidly clear and prolonged, but without râles at any point over either lung. Evidences of subacute inflammation, however, of the larger bronchi were clear, and the treatment was adapted accordingly.

Case IV.—This and the next case are added as of especial interest. Mr. J. L. C., æt. 23; thin and pale, but in good vigor; a telegraph operator by occupation; came in on the 19th of December with a severe cough, said to be of one week's duration. A morning cough, however, has been experienced for several months; expectoration chiefly in the morning, and greenish.

The notes are as follows: "Right thorax anteriorly; clear transmission of heart-sounds beneath the clavicle; no râles. At supra-scapular space, expiratory sound prolonged; inspiratory sound of a sibilant, bronchial character; dulness slight; no râles posteriorly. Respiratory sounds on the posterior aspect of the left lung exaggerated, but not more than is frequently observed with impairment of the right."

On comparison of the two apices with the resonator, the transmission at the supra-scapular space on the right side was found somewhat greater than on the left, but no râles and only slight creakings were developed. Upon listening over the middle lobe of the left lung behind, the hoarse roar transmitted was most marked. Up to this time no questions had been asked. To test the observations I said, with some hesitancy: "You have pain at this part of the left side?" "Yes," he replied, "great pain and soreness upon breathing."

"You have had, at some former time, trouble at the top of the left lung, and probably hemoptysis?" "Exactly," he said, "but it was five years ago; there is no pain or trouble now." I repeat the exact words because they were so strongly impressed by the circumstances.

Here, then, in the left lung was the seat of the new trouble; the old being quiescent, and treatment for the acute, and not the chronic disease, was successfully instituted.

Case 5.—This case is given because typical in some measure of a class of rapidly developed apex disease not hard to recognize, but illustrating the magnifying power of the simple device under consideration.

James J. J., aged fifteen, referred for diagnosis by the company by whom he is employed as clerk, presented himself Dec. 30, 1876, with the following brief history:

"Cough of six weeks' duration; pulse, 90; afternoon fever; night sweats; aphonia, greenish expectoration, etc."

Laryngeal examination shows trachoma due to tubercular granulation, on the right vocal cord, with tumefaction of the capitula Santorini.

Physical examination exhibited all the evidences of a small cavity in the right apex and consolidation at the apex of the left. With the resonator the hoarse roar like the surf seemed to bring the cavity almost against the ear, while the râles and creaking sounds were intensely magnified. On the left side the exaggeration of all normal and abnormal respiratory murmurs over a clearly definable area left no doubt of disease which must soon overwhelm.

As a brief summary of observation with this device it may be remarked, that it intensifies the sounds of vesicular dilatation, whether in a normal or morbid state. It intensifies the tubular sounds which, to the unassisted ear, are sometimes partially drowned by the neighboring healthy murmurs, and it exaggerates to painful hoarseness the evidences of air in cavities. Farther experience will undoubtedly define more clearly the amount of assistance it will render in a disease which is manageable only in proportion to the promptness of its early detection.

Control of Syphilis.—Dr. J. R. Black, of Ohio, is another advocate for the examination of males previous to their entrance of houses of prostitution. He advises that the manager of the house perform this function, and that if any ulcer or abrasion is noticed the visitor must be denied admittance.

NEAR-SIGHTEDNESS IN THE PUBLIC SCHOOLS.

REMARKS MADE BEFORE THE MEDICO-LEGAL SOCIETY OF THE CITY OF NEW YORK, JAN. 3, 1877,

By CORNELIUS R. AGNEW, M.D.

Mr. President and Gentlemen—When asked to come before the Medico-Legal Society and make some remarks regarding the sanitary condition of our public schools, I was not aware of the course the discussion had taken, and did not charge myself with the duty of preparing a paper for the Society. It is true that for many years I have been interested in endeavoring to determine what the influence of school life is upon school children, and to separate those effects which may be justly attributed to life inside of the school houses, from those which might perhaps, with more propriety, be traced to certain conditions in the life of the children at home or elsewhere, outside of the school-houses. I think it is very important, in determining the effects of school life, that we should study the entire life of the child, as far as possible. We should take into account questions of heredity, and the hygienic conditions, to which the child is subjected at home, so that we may be able to know whether the child is likely to be a good tissue-builder. Because, as we all know, the effect produced by that part of the life of the child spent in the school-house will depend very much upon the heredity of the child, and upon the way in which each particular child builds its tissues. Many things, which might produce conditions grave in character in children of less stamina, may be borne with impunity by the robust. There is difficulty in separating the effects produced in school-houses from those produced by hereditary tendencies. I think this is a most important separation, and one which should always be borne in mind while making up our estimates upon the sanitary condition of the public schools. I was very much interested in the reports of Cohn, of Breslau, published many years ago, containing observations as to the condition of the eyes of children in the villages surrounding that city, and in the school-houses of the city, and in its University. He found that, among the children in the villages, the amount of near-sightedness was very small—not exceeding two per cent.. He made this result a basis for further operations, assuming that two per cent. might be accepted as indicating as near an approach to the normal eye as found anywhere, and continued his examinations through the primary and other schools of the city of Breslau, and into its University. He found through all the schools, as they rose in grade, a progressive near-sightedness among the pupils, until the University was reached, where it was found to be present in a most appalling ratio, reaching as high—if memory serves me—as sixty or seventy per cent. Now we all know that the peasant children in that country live in a state of comparative simplicity, and do not use their eyes to any great extent upon work which involves strain. Other observers, in other parts of Europe, followed with observations made in the same direction, and reached nearly the same results. When I came to consider the subject here, and talked to some of my friends concerning it, I was met with the statement that in this country the conditions were peculiarly favorable for the children; that in Germany the dictary was not as good as here; that the school-houses were not so well built; that there was a system of education in

that country which was much more severe than that in practical operation here; and that the children were put in those schools, and kept under that system continuously, from the tender age of six or seven years until they had passed through the University; and that this continuous strain, added to the dangerous sanitary construction of the schoolhouses, and the deficient salubrity of the homes, produced a state of affairs which could scarcely be expected to be present in this country. As a matter of course, I was not able to accept such a statement, and it occurred to me to have tables arranged, like those of Cohn, and try and have observations made in the city of New York, and also in the cities of Brooklyn and Cincinnati. I selected New York as the great metropolis, supposing that the children of its population would perhaps show as quickly as those of any other city, the effect of straining the eye; and then taking the children in a city like Brooklyn, a city which is a little more provincial than New York; and lastly Cincinnati, where perhaps less strain was brought to bear upon the eyes of the children than in either New York or Brooklyn. I obtained the assistance of Drs. Prout and Matthewson, of Brooklyn, and asked them to obtain admission to the best schools of that city—schools in which the drill was most unrelenting. I also sent some of the tables to Dr. E. Williams, of Cincinnati. Drs. Ayres and Williams examined the eyes of a large number of children in the schools of that city, taking, without special selection, children from the primary, intermediate, and high schools. In that manner he examined the eyes of children who were quite young, and from that up to the age at which boys were sent into colleges. Some of the tables were also given to Dr. W. Cheatham, the house-physician of the Manhattan Eye Hospital, of New York, and he was given permission to make similar examinations in the New York College. That college stands at the head of the public school system. The boys reach it by merit, and they may be considered—so to speak—as the cream of the system.

When these tables were returned, and the observations summed up, it was found that the result obtained in New York, Brooklyn, and Cincinnati had a striking correspondence to those obtained in Breslau; and that near-sightedness increased as we ascend from the lowest to the highest schools in New York, Brooklyn, and Cincinnati, in about the same ratio as in the city of Breslau. We, of course, then immediately rejected the idea that the children of Breslau and its vicinity were under influences peculiar to that country. I then felt very desirous of arriving at some conclusion, if possible, as to how far the system of education generally pursued in our schools might be charged with bringing about, in the eyes of scholars, a state of affairs which intelligent persons would be compelled to regard as objectionable. Now, while I recognized that this general increase of near-sightedness was deplorable, I by no means was forced to the conclusion that the schools themselves were to blame in this country, in so great degree as previously supposed, and as many allege. I have no doubt but that work done in schools may come in as a large factor in the production of this condition of the eyes, but I am not prepared to give any opinion as to the exact value of the factor. Statistics are like a two-edged sword—they cut both ways—and it is the part of wisdom to be careful in making deductions from them. While, therefore, there was found to be an increasing amount of near-sightedness in these schools, I was not able to satisfy myself as to how much was due to conditions existing in the schools, and how much due to heredity, habits of life; in other words, to conditions existing in the habits and homes of the scholars.

Progressive near-sightedness is a disease. A near-sighted eye is not a normal eye. When the child is born in the normal state, the eye is not near-sighted. Now, the eye is an organ which is plastic when the child is born; it is in a condition to be changed in its shape; its tissues are in a condition to be modified by the use which is made of the organ. Commonly the child goes on until it reaches the age of eight or ten years, perhaps a little older, when it is observed that it has to hold whatever it is looking at a little nearer to the eye than previously, and then, on examination, reveals the fact that the eye is near-sighted. If you follow such a child up to the age of twenty-five or thirty years, it will be found that the near-sightedness has doubled, and perhaps quadrupled. Now, we know, by means of the ophthalmoscope and other means, that the near-sighted eye is changed from the spherical to the elliptical, or ovoid form, and that progressive myopia is always marked by change in the shape of the eye. Inasmuch as the eye is made up of living tissue which is constantly undergoing the process of waste and repair, you can readily perceive that the law inducing the amount of such waste and repair is very much determined by the character of the tissue-building process in each child, and the way in which that child uses the eyes. For example, the child is allowed to sit, perhaps for hours, with the body partly bent, and the face inclined towards a book which rests in the lap while reading; here the accommodation of the eyes is taxed in looking at a minute object while they are in a bad condition, and all this time waste and repair is going on as best as it may. The child would go blind in an instant were there no tissue reproduction. Now, if the eye is used while the body is in an unfavorable position, it cannot be nourished as it should be, and the pressure of the muscles upon the eyeball and the action of the crystalline lens in focalization must bring about changes which lead to this progressive form of disease. Then let the child go at an early age into a school-house where perhaps it will be placed upon work with books, slates or copy-books which could be better done by means of the black-board or models, and again the eyes are strained, and so the unfavorable effects are continued.

In accordance with the plan which has been detailed, the eyes of 1479 students were examined. Of these, 630 were in Cincinnati, 549 in New York, and 300 in Brooklyn.

In Cincinnati, the students examined were of the primary and intermediate schools, and classes of the normal high-schools; in New York, of the introductory, freshman, sophomores, junior and senior classes in the New York College; in Brooklyn, of the Polytechnic Institute. In nearly all cases the refraction was determined by trial glasses, and afterwards corrected by the ophthalmoscope.

TABLE I.

The first table, embracing the examinations of the 630 children in Cincinnati, gives, for the district schools, 209 scholars, and of these there were 83½ per cent. who had natural, or what is called emmetropic eyes. In those schools the near-sightedness rate was 10 per cent. In the intermediate schools, the eyes of 210 scholars were examined, and of these 80 per cent. were natural, and 14 per cent. near-sighted.

In the normal high-schools, the eyes of 210 stu-

dents were examined, and of these 78 per cent. were emmetropic, and 16 per cent near-sighted.

TABLE II.

In the second table we have the results of examinations made of the eyes of 549 students in the New York College.

In the introductory classes, 57½ per cent. were found emmetropic, and 29 per cent. near-sighted.

In the freshman class 42½ per cent. had natural eyes, and 40 per cent. were near-sighted.

In the sophomore class no very material difference from what was observed in the preceding classes; but in the junior class 37 per cent. had natural eyes, and 56 per cent. were near-sighted.

In the senior class 50 per cent. had normal eyes, and 37 per cent. were near-sighted.

TABLE III.

In the third table we have the result of observations made upon the eyes of 300 students in Brooklyn. Of those, there were found in the academic department of the Polytechnic Institute 56 per cent. with natural eyes, and 10 per cent. near-sighted.

In the collegiate department, 158 students, 53 per cent. had natural eyes, and 28½ per cent. were near-sighted.

Summarized, it is found by these tables, that of the students examined at Cincinnati there were 10 per cent. near-sighted in the district schools, 14 per cent. in the intermediate schools, and 16 per cent. in normal high schools.

Of the students examined in the New York College, 29 per cent. of the introductory class were found to be near-sighted; 40 per cent. of the freshman class; 35 per cent. of the sophomores; 53 per cent. of the junior class, and 37 per cent. of the senior class.

Of the students examined at the Polytechnic Institute, Brooklyn, near-sightedness was found in 10 per cent. of the eyes in the academic department, and in 28 per cent. in collegiate department.

Now, if we find in a first-class organ like the eye, examined in early life and all through childhood, and also during middle life, that the effect of the use of that organ is to produce or aggravate a diseased condition, may we not, from what we see in this transparent organ, justly infer that during the same period of life damage is being done to other organs of the body which are not transparent, and in which morbid conditions cannot be so easily determined. This thought has made me feel a very great interest in these investigations. I believe that before we conclude these examinations certain results will be formulated by which parents at home will be able to apply the principles of hygiene much better than now, to the care of their children, the school-boy be placed under better instruction in the schools, and the school-teachers much better qualified than now for the management of the scholars placed under their care.

It seems to me that the very etymology of the word education enforces the idea that the child is to grow better and stronger up through his school life, and that by proper regulation of his diet and management at home, by properly lighted school-rooms and properly constructed desks, and a better regulation of his hours of study, he should represent a much higher type of life when he has reached the age of twenty-five than when he is just taken in hand with the view of giving him book knowledge. We certainly should not damage the eye in the process of education, and I believe that the damage done to the eyes is to be taken as an index of that which is done to other organs of the body. In closing, I must acknowledge my obligations to Dr. D. Webster for his invaluable assistance in the work.

Progress of Medical Science.

Lithoclysmy; a new Operation for Vesical Calculus.—Dr. Pignoni has designed an instrument by means of which he proposes to disintegrate and dissolve calculi while still in the bladder. He has found by experiment that nitric acid diluted with half its weight of water will rapidly disintegrate all forms of calculi, even those which contain cholestearine, the best solvent for which, however, is alcohol. Neither of these reagents exert any destructive influence on caoutchouc. In order, then, to destroy a stone while still in the bladder, it is only necessary to introduce a long caoutchouc bag into the bladder, to isolate the stone within this bag, to bring its open end out of the meatus urinarius, and to cause a double current of diluted nitric acid or of pure alcohol, if the calculus be composed exclusively of cholestearine, to pass through the bag. All this may be safely done with Dr. Pignoni's apparatus. It consists first of all of a straight tube, 7½ inches long, and open at both ends, through which a gum-elastic bougie passes. This is introduced into the bladder, and then the bougie is withdrawn leaving the tube *in situ*. The bladder is then filled with warm water, and the isolating sound introduced. This sound consists of a long metallic stem, to one end of which a flexible, elastic steel hoop is attached. The open end of a caoutchouc bag is fastened to the hoop, which is then compressed with the fingers and pushed into and through the canula. Upon entering the bladder the hoop resumes its original form, and by careful manipulation the stone, provided it be not incapsulated, may be seized and imprisoned in the sac. The whole of the caoutchouc bag is then pushed into the bladder and the isolating sound withdrawn, bringing with it the open end of the bag, and leaving the closed end in the bladder enveloping the stone. The interior of the bag is greased, and three or four tapes are glued to it longitudinally to keep it from embracing the stone too tightly. The reagent is introduced through a gold or platinum double current catheter. If the stone be of moderate size it can be dissolved in a single seance; but if it be too large for that, the solvent should be evacuated, and the bag washed out with common water, and then split open.

An extensive experience with the operation has convinced Dr. Pignoni that the increased temperature caused by the action of the solvent upon the stone, does no harm. Spontaneous rupture of the bag is impossible. Even if it should occur, however, little harm could result, for the bag being almost completely filled by the stone, the amount of chemical solvent contained in it would be small in comparison with the pint or more of water it would meet in the bladder.

The action of a voltaic current of electricity, a powerful agent for decomposing calculi, might also be employed in addition to the chemical solvents. When stricture of the urethra or an enlarged prostate interferes with the operation per urethram, lithoclysmy may be performed through the perineum or the rectum, or through the hypogastrium, in preference to lithotomy or lithotrity.—*Le Mouvement Médical*, November 18th.

Changes of the Ciliary Processes during Accommodation.—Prof. J. Hjort, of Christiania, narrates the case of a workman who was severely injured by an explosion of dynamite. In addition to his other injuries, there was also a complete absence of the iris of the right eye. The only other lesion to be perceived in the eye was a vertical wound of the cornea about 3 mm. in length. The lens remained in its normal position, the zonula of Zinn was intact, and the vitreus transparent. Vision soon became perfect. The ciliary processes could be seen very distinctly with oblique light, with the ophthalmoscope, and still better with Brücke's lamp under oblique illumination. The latter rendered it easy to study the relations of the ciliary processes during accommodation, and also their changes after the instillation of calabar extract. The results of these observations are, that by the act of accommodation or the contraction, provoked by the calabar :

1st. The dark margin of the lens became broader.

2d. The ciliary processes approached the axis of the eye and became swollen.

3d. The distance between the margin of the lens and the ends of the ciliary processes (the zonular space of our author) did not appear to suffer any change.

4th. The changes observed did not occur instantly, but required a very appreciable time, though not very long. The relaxation of the accommodation also occurred gradually.

The distance between the margin of the lens and the sclerotic was increased during the accommodation, and just sufficiently to correspond to the advancement of the ciliary processes.

Under the action of atropine, it may be that the ciliary processes moved backwards a very little, but it was impossible to notice any change of the zonular space.

Prof. Hjort has also examined several albinos, and he has found that the phenomena presented were precisely the same, except that in them the observations were made with greater difficulty.

These observations fully confirm the theory of accommodation formulated by Helmholtz, Graefe, and most modern physiologists. Becker, who has examined the eyes of several albinos, differs in this that he has found that the ciliary processes are drawn backwards during accommodation.

Prof. Hjort had observed the same phenomenon, but he explained this, at first, by the insufficient strength of the calabar used, later and principally by the fact that the retrograde movements of the ciliary processes are only illusory, and the latter become concealed further behind the scleral margin when the eye makes a slight outward movement during the examination. This happened once to our author, and probably also led to Becker's error. This explanation is also confirmed by the observation that the distance between the margin of the lens and that of the sclerotic is also diminished at the same time.*—*Nordiskt Medicinskt Arkiv.*, 8de Bandet, No. 17.

Paracentesis of the Pericardium, with an Analysis of Forty-one Cases.—Dr. John B. Roberts, of Philadelphia, gives an interesting résumé of this operation from the earliest times, with the indications for treatment and the general results that may be expected. Riolan first proposed it in 1649, but Romero performed the first successful operation at some time before 1819. Paracentesis is indicated when the effusion is large and threatens to destroy life, ordinary treatment failing to produce absorption. The period that the surgeon must allow to elapse before tapping is as yet undecided. As a method of giving relief in chronic cases it is probably no more open to objections than is excision of the breast or tongue for cancer. The particular method of operating is now tolerably uniform. A small aspirating needle is to be used, so small that it simply makes a fine puncture that would not harm the lung, if that were pierced. The point recommended by Dieulafoy is in the fifth interspace, about three-quarters of an inch from the edge of the sternum. In fifteen out of thirty-four cases this point was chosen.

The dangers to be dreaded are wounding of the internal mammary artery, and striking the heart as it is thrown forward in systole. By adopting Dieulafoy's plan, the artery is avoided, as it lies from a quarter to half an inch from the edge of the sternum. Injury to the heart may be avoided by having a canula slide over or within the needle, thus guarding its sharp point. The heart may, probably, however, bear a certain degree of injury with immunity, according to Eve, Steiner, and others. Baizeau and Roger tapped the ventricle without doing harm, both patients surviving the operation, though in one case 150 and in the other 250 grammes of blood were drawn. As for the danger of the operation in these forty-one cases, regarding one in which the final result was not given, as a fatal case, the mortality was 53.66 per cent. But then the effusion in many of them was merely a single factor of disease; in fact, in seventeen there were other concomitant and often incurable affections. In five fatal cases no other disease was mentioned, which puts the mortality at 12.19 per cent., supposing it to have been from cardiac dropsy alone. Since the year 1850, of the uncomplicated fatal cases, the mortality has been 21.43 per cent., which though not so low as the figures given for all the uncomplicated cases taken together, is perhaps as low as in many other operative procedures that are regarded as perfectly justifiable. In acute rheumatic pericardial effusions the results have been excellent; where, however, the disease becomes chronic a perfect cure is almost hopeless, for, owing to the long continuance of the inflammation, the maceration of the heart and the pressure of the distended sac, the tissues have assumed new pathological characters.—*New York Med. Journal*, Dec., 1876.

Neuroma of the Median Nerve—Resection and Suture of the Nerve.—The notes of this case were read before the *Société de Chirurgie*, on November 8th, by M. Notta, of Lisieux. The patient, a man forty-five years of age, consulted M. Notta in September, 1875, for a small tumor in the anterior part of the forearm. This tumor was as large as a hazel-nut, movable under the skin, and not tender on pressure, but in consequence of a blow became the seat of very severe pains. It presented all the subjective and objective characters of a neuroma of the median nerve. The tumor was cut down upon and removed, and the two ends of the nerve which, in consequence of the retraction, were separated to the extent of an inch, were drawn together and held in contact by means of a metallic suture. The superficial wound was then united. Some days after the operation an attack of erysipelas supervened, but it was soon cured and the wound then cicatrized. After the operation there was anæsthesia of the parts of the hand supplied by the median nerve. Formication soon set in. On the thirteenth day, sensation returned in the ring-finger, and on the sixteenth day it returned in the

* Muscarine was also tried. The effect was the same as that of calabar, though much weaker.

thenar eminence. The palmar surfaces of the thumb, index and middle fingers regained their power of sensation more slowly and gradually; but eight months after the operation, the patient felt as well with that hand as with the other. At the same time some trophic disturbances, which had taken the form of ulcerations of the index and mediau fingers, were cured. Microscopical examination showed that the tumor was an interstitial fibro-sarcoma of the median nerve, the nervous fibres being separated and spread out over the surface of the tumor.

M. Verneuil discussed this communication at some length. He thought the suture of the nerve useless. Careful study shows that the return of the nervous innervation after resection of a nerve, takes place from the periphery towards the centre. Thus, after resection of the lower jaw, the corresponding half of the lower lip is paralyzed; on the evening of the operation the prick of a pin is hardly felt in the median line; on the next day it is felt two or three millimetres outside of the median line, and so on. In M. Notta's case, the time intervening between the operation and the return of sensation to the ring-finger and the thenar eminence was so short that it is unreasonable to suppose that regeneration of the nerve and passage of the nervous influence along the newly-formed nerve-fibres could have taken place. The return of sensation was due to the establishment of collateral innervation through the agency of the ulnar and radial nerves. To support this view he cited a case of a young girl afflicted with permanent and extreme flexion of the fingers of one hand caused by a cicatrix in the front of the wrist. Sensation in the hand was preserved, and on that account M. Verneuil thought that the median nerve, and necessarily also the tendons of the deep flexor, were unaffected by the cicatricial band, which involved only the tendons of the superficial flexor. He operated with the view of isolating these tendons, but in doing so he cut a whitish cord, about 1 or 2 millimetres in thickness. About a centimeter of this cord was cut out, and on examination found to be a portion of the median nerve, which was, however, very much altered. After the operation he was surprised to find that the sensation in the hand was not affected in the least. In this case, consequently, the median nerve had no office to perform. The nervous influence previous to the operation did not pass through its fibres, and the hand was supplied by collateral innervation.

M. Tenier agreed with M. Verneuil, and thought, moreover, that suture of the nerve was dangerous, and that it was possibly the cause of the erysipelas in M. Notta's case.—*La France Médicale*, November 11th, 1876.

Venous Pulse as an Habitual Symptom of the Physiological Action of Chloroform.—Prof. Léon Noël, of the University of Louvain, publishes a paper with the above title in the *Bulletin de l'Académie de Médecine de Belgique*. This remarkable phenomenon does not appear to have been observed by any other writer. It appears always at the same period of the anæsthesia, that is, during the period of awaking. The internal jugular veins, the subclavian veins, in more than half the cases the external jugulars, and sometimes even the facial veins, are then the seat of pulsations which are isochronous with the radial pulse. These pulsations appear very marked to the eye, but give only a very slight sensation to the palpating finger. A double undulatory movement takes place with each pulsation. Compression of the external jugular, in which vein the phenomenon is most easily studied, at the base of the neck, causes the pulsations in that vein to cease; on the other hand, they persist during compression of the vein in the upper part of the cervical region. They last about half an hour, diminishing gradually in intensity. During all this time the heart's action and the respiration present no particular modification.

Prof. Noël thinks that a venous pulse so marked as this indicates a profound perturbation of the functions of the heart. Its existence proves that the organism is still under the influence of the anæsthetic. In fact, numerous recorded cases show that death may occur from the influence of chloroform even when the inhalations have been suspended for some time. What is the mechanism of this venous pulse? Dr. Noël thinks that it is due, possibly, to an incomplete closure of the right auriculo-ventricular valve, consequent to the paralyzing action of the chloroform on the heart; on the other hand, it is not unlikely that the poison causes an engorgement of the venæ cavæ and the right ventricle, which interferes with the escape of the contents of the auricle into the latter. Whatever its cause, however, the venous pulse indicates a profound functional disturbance of the heart; hence, it is important for surgeons to watch their patients attentively while they are reviving from an anæsthetic.—*La France Médicale*, November 18th.

Abscess of the Abdomen Simulating a Pneumothorax.—Dr. F. Levison, of Copenhagen, reports the case of a woman twenty-two years of age, who entered the hospital with all the symptoms of a peritonitis caused by an ulcer of the stomach. Several days later, the percussion of the left subscapular region gave a tympanitic sound over an extent of three to four centimetres, while a dull sound was found above as well as beneath this tympanitic zone. Two days later the tympanitic sound had extended over the entire left surface of the back, as far as the spine of the scapula, and in these regions the respiration and the sound of the voice had an amphoric character. The diagnosis was made of a pyo-pneumothorax, caused by perforation of the diaphragm, and, to relieve the patient, two punctures were made in the seventh and eighth intercostal spaces. Considerable gas, but no liquid escaped; the stethoscopic signs remained nearly the same. A diphtheritic affection of the respiratory passages supervened and caused the death of the patient.

The autopsy demonstrated fresh adhesions between the stomach, the right lobe of the liver, the gall-bladder, the spleen, and the diaphragm. A cavity was formed by these adhesions, communicating with the stomach by a pretty large perforation, and containing gas and a little pus, but without any communication with the cavity of the left pleura, where, consequently, neither gas nor liquid were found. The diaphragm had been driven upwards in such a manner that the trocar necessarily passed through it to enter the cavity formed by the adhesions.

This case is quite remarkable from its rarity; it is rendered still more so by the support it affords to the theory which attributes the formation of the physical signs noticed in pneumothorax, and called amphoric voice and respiration, metallic tinkling, etc., to the modification of the pulmonary sounds by a stratum of air adjacent to the lungs, but without communication with the bronchi.—*Nordiskt Medicinskt Arkiv.*, 8de Bandet, No. 20.

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INTELLIGENT AND EFFECTIVE QUARANTINE.

THE report of the Health Officer for the past year develops some points in the experience of quarantine which are of interest to every one. Notwithstanding the fact that from May 15th to Oct. 15th, three hundred and sixty-three vessels arrived at New York from ports where yellow fever prevailed in a more or less epidemic form, not a single authenticated case reached the city. If we associate with this state of affairs the statement that during all this season rendered so unusual by the number of places in which yellow fever prevailed as an epidemic, not a vessel was so restrained as to retard her regular sailing, we are perfectly safe in upholding the system of quarantine which has led to such gratifying results. It would seem that, so far as facts and figures will allow us to draw any conclusions, the problem has at last been solved of effectually guarding against the possibility of infectious diseases entering our city, while at the same time the best interests of commercial circles have been amply considered and satisfactorily protected. It is but just to state that the principles upon which this consummation of the wishes of the people and the merchants are founded were established five years ago, by the present Health Officer; and to his laudable and untiring efforts in reconciling what have heretofore been conflicting interests, we owe what must now be considered a perfect system. Not only have numerous cases of yellow fever found their way to this port, but from February until the latter part of October (except during the month of May), there were thirty-nine patients with the disease actually treated in the hospital at Dix Island. Of this number eleven only died, showing a favorable percentage of recovery; which result, by the way, Dr. Vanderpoel attributes in a great degree to the airy and healthy location of the hospital. In regard to the means taken to prevent the spread of he disease the Health Officer remarks:

The presence of yellow fever at Brunswick, Savannah, and Charleston, all lying within a point from which steamers could complete this passage within the average time assigned as the incubation period of the disease, rendered it necessary that some arrangement should be made whereby the commerce from those ports should remain unrestricted. It was directed that no passengers be taken on vessels coming from those ports. This left me to deal with the crew and cargo only. Full hygienic precautions were suggested to the steamers plying between Savannah and New York, which, on their part, were faithfully carried out. The usual course was pursued with reference to the vessel and cargo as with all vessels coming from infected ports. The vessels made their trips during the whole epidemic with their accustomed regularity; indeed, for reasons about to be stated, extra vessels were placed upon the route. So far from New York being a loser, she was a gainer, in a commercial aspect, from the fever epidemic at Savannah. She was the only port on the Atlantic coast which permitted free commercial intercourse with the infected city. With Baltimore, intercourse by sea was almost wholly interdicted, while at Philadelphia an entire embargo was laid upon all communication by way of the sea. The agent of the Philadelphia and Savannah Line complained "that not only was all intercourse interdicted, but the authorities would neither allow his steamer, then at Philadelphia Quarantine, to discharge, nor depart for another port." It seems scarcely credible, after the full light of recent experience, so suicidal a policy should have been pursued. Had the fever fomites really existed upon the vessel, no decision could have been adopted which would so likely cause the epidemic to appear. Experience has fully shown that but the nidus of fomites allowed to remain unmolested in the hold of a vessel will so rapidly develop as soon to make the vessel a pest ship, whereas if the cargo is speedily removed and the vessel thoroughly cleansed, danger is reduced to its minimum factor.

The consequence of this embargo was, that not only was an excess of cotton sent from Savannah to this port, as compared with previous years during the same period, but all the vessels trading from Charleston, Wilmington, and even Norfolk, were tasked to their utmost carrying capacity. Sanitary measures and commerce need not, therefore, be antagonistic, and in this instance the former aided the latter.

UNIFORMITY IN METEOROLOGICAL OBSERVATIONS THROUGHOUT THE WORLD.

THE tendency of scientific men to establish uniform systems of observation throughout the world has a fresh exemplification in the recent action of the Signal Service Bureau regarding simultaneous meteorological records. At the meeting of the Meteorological Congress of Vienna in 1873, it was proposed that at least one uniform observation should be made at a specified time at every signal station in the world, and that the results should be embodied in suitable synopsis charts for universal use. In conformity with this suggestion the Signal Service Bureau has, as the result of an extensive correspondence, established the requisite co-operation between the United States and Algeria, Austria, Belgium, Great Britain, Denmark, France, Germany, the Netherlands, Norway, Portugal, Russia,

Spain, Sweden, Switzerland, Turkey, Greece, Canada, the Hawaiian Islands, Dutch Guiana, and Japan.

The Secretary of the Navy issued an order Dec. 25, requiring that, on every naval vessel, and at every naval station, wherever they may be, on every sea, in storm or sunshine, one observation shall be taken and recorded daily at precisely 7.35 A.M., Washington mean time. These observations must embrace, when practicable, atmospheric pressure, temperature, wind, rain, reading of wet-bulb thermometer, sea-swell, and weather. The record of these observations is to form a part of the record of the United States bulletin of international meteorological observations, and the greatest care and promptitude are enjoined in making it. A copy of the bulletin will be sent to every capital.

The Army and Navy have agreed to co-operate in this great work, and all that is needed is the organized assistance of the mercantile marine, to place not only the entire northern hemisphere under a system of daily meteorological observations, but at stated intervals the entire civilized world. It is impossible to calculate the benefits of these reports to scientific men generally, and especially to those engaged in the study of meteorological influences upon disease.

NEAR-SIGHTEDNESS IN SCHOOL CHILDREN.

THE remarks of Dr. Agnew on the near-sightedness of school children will doubtless command the attention which they deserve. The conclusions arrived at may possibly disappoint many who have given the matter only a superficial study. While, however, we may congratulate ourselves that the case is not so bad as might have been anticipated, we must not be tempted to draw conclusions too hastily. In the face of the fact that near-sightedness increases in a given ratio with the character and amount of study, it is impossible to escape the conviction that there is a very significant relation between cause and effect. Viewing the question in the light of the necessity of reforms in our schools, it does not matter, however, whether we take the eye as a single organ or as a part of the general economy,—whether, in fact, it can be injured directly by absence of proper light, by abnormal focal adjustment and the like, or indirectly damaged by the violation of general hygienic conditions. In any event, every supposable cause of the trouble should, as far as possible, be removed. Indeed, if we assume with the distinguished observer that the pathological processes which take place in the eyes of school children are associated with similar changes in other organs, and all of these are due to faulty school management, we have fresh incentives for more extended observations, and are likely to discover more arguments in favor of radical changes in the manner of educating our children.

SUBURBAN NUISANCES.

STATE SENATOR WAGSTAFF has taken to heart the interests of the dwellers upon the East side of New York, who have suffered for years past from the sickening and noxious odors wafted from the Hunter's Point oil factories. At the commencement of the session he introduced a bill which gives the Board of Health of any city in the State a right to apply to the courts of the county in which the nuisance-creating factory is situated, for an injunction upon its owners to abate the nuisance. The Board of Health may also, in case the owners of the factories neglect to comply with a request that they put an end to the nuisance, bring a suit against them and recover $250 for every refusal or neglect.

The passage of this bill will confer an incalculable benefit upon thousands of individuals who have heretofore despaired of any relief.

INSPECTION OF IMPROPER FOOD.

WE are surprised to learn from an address delivered by the President of the Health Board, at a recent meeting of the Public Health Association, that in consequence of the want of any appropriation there were no officers engaged for the inspection of meats. The omission of this provision is a very serious one, and it is to be hoped that during the present session of the State Legislature some means will be adopted to secure the desired end. In all the countries of Europe special commissions are formed at great expense for this purpose, and the public at large is as much if not more interested in this work than in any department of public health. In any large city, the fact of the non-existence of gentlemen qualified for the duties of these offices is such a reflection upon the sagacity of our law-makers, that we are in hopes that the necessary steps will be taken without delay to secure the required funds and appoint the proper persons to the offices.

ANOTHER DEATH FROM CHLOROFORM.

CLOSE upon the report of the chloroform accident at Rahway, N. J., comes an account of another death by the same agent, occurring in London. In the latter instance, every precaution was taken to guard against accident, but to no purpose. A full report of the case will be found in another column. On reading over the account of the post-mortem, we cannot help regretting that a microscopical examination did not settle the question concerning a supposed fatty heart.

AN EFFICIENT DISINFECTANT.—The *Lancet* says: "No better agent could be used than the bisulphide of carbon, which on ignition involves sulphurous acid in vapor. The substance is not costly, and may be burnt either in an ordinary spirit lamp or in an open dish. It should be used with caution, as it is extremely inflammable."

Reviews and Notices of Books.

TRANSACTIONS OF THE NEW YORK ACADEMY OF MEDICINE. Second Series. Vol. I. New York: D. Appleton & Co. 1876. 8vo, pp. 458.

THE present volume of Transactions contains the papers which have been read before the Academy during the past two years. As all of these have been published in abstract in the MEDICAL RECORD, it is unnecessary to do more than give our readers their title in order to enable them to judge of the character and contents of the work. I. Abscesses in the Right Iliac Fossa. Dr. Gurdon Buck. II. Abscesses in Right Iliac Fossa treated by Incision, Dr. E. Krackowizer. III. Absorption Bands in the Spectrum of Colored Organic Fluids, Dr. John C. Dalton. IV. On Anchyloses, Dr. Lewis A. Sayre. V. Spinal Paralysis of Adults, Dr. E. C. Seguin. VI. Mammary Diseases during Lactation, Dr. S. Caro. VII. Morbid Changes of the Medulla, Dr. Allan McLane Hamilton. VIII. Reparation of Brain-tissue after Injury, Dr. John P. Gray. IX. Disturbed Action of Heart and Functional Murmurs, Dr. J. R. Leaming. X. Prevention and early Arrest of Pulmonary Phthisis, Dr. E. D. Hudson. XI. Multiple Abscess of the Liver, Dr. S. W. Dana. XII. and XIII. Treatment of Deformed Pelvis, Dr. Isaac E. Taylor. XIV. Rheumic Diathesis in Dermatology, Dr. H. G. Piffard. XV. Hospitals, Dr. W. G. Wylie. XVI. Diphtheria, Dr. C. E. Bellington. XVII. Rotation in Lateral Curvature of Spine, Dr. A. B. Judson. XVIII. The Spectroscope, Dr. G. B. Fowler. XIX. Epidemics of a Century, Dr. G. M. Smith. XX. Degeneration of Placenta, Dr. C. A. Leale. XXI. Incision and Discission of Cervix Uteri, Dr. E. R. Peaslee. XXII. Chorea and its Treatment, Dr. Geo. T. Stevens, of Albany, N. Y.

The variety of the subjects named, and the thorough and exhaustive manner of their presentation, give a variety and value to this volume which cannot be overestimated. The typographical execution is excellent, and the general make-up of the work is everything to be desired.

THE MEDICAL MEN OF THE REVOLUTION: An Address before the Alumni Association of Jefferson Medical College, March 11, 1876. By J. M. TONER, M.D., of Washington, D. C. Philadelphia: Collins, Printer, 705 Jayne Street. 1876.

THE address by Dr. Toner gives evidence of extensive research, and forms a most valuable contribution to the historical literature of the medical profession. Surely in those days which so "tried men's souls," the physicians played a most important part, and their memories should not be covered with the dust of years. Dr. Toner has garnished their epitaphs, and their names again shine in a brilliant setting of labors in defence of human liberty.

A SKETCH OF THE LIFE AND WRITINGS OF LOUYSE BOURGEOIS. The Annual Address of Retiring President before the Philadelphia County Medical Society. By WILLIAM GOODELL, A.M., M.D. Philadelphia: 1876.

DR. GOODELL has stepped out of the beaten track, and given us an address which consists in an exceedingly pleasant review of the life and writings of the midwife to Maria de' Medici, the Queen of Henry IV. of France. The work upon which the review was based was printed in Paris in 1617.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Dec. 12, 1876.

DR. C. K. BRIDDON, PRESIDENT, IN THE CHAIR.

(Continued from page 27.)

CARIES OF THE CARPAL BONES—RIGHT WRIST.

DR. MASON related the following case:

Sarah McG., aged between ten and eleven; highly nervous temperament; was seen first by Dr. Thomson, Jan. 31, 1870. She then complained of pain in the wrist, the dorsum of which was slightly swollen and a little red. Lead and opium was ordered; nothing further was seen of the patient for four or five days, when the wrist was found greatly swollen, patient suffering intense pain and very much run down. Feb. 5, 1870, I saw her in consultation with Dr. T.; at this time both the dorsal and palmar surfaces were greatly swollen and erysipelatous. Under ether, free incisions were made, both in dorsal and palmar portions of the hand, which gave escape to a large quantity of pus. Other incisions were made from time to time, and setons drawn through them; this relieved the condition of affairs very much. Three weeks after the first incision was made, a splinter of wood, one inch in length, came out of one of the openings. She then told us that during the preceding summer, while playing on a fence, she thought she ran a splinter in her hand; but not finding any trace of it at the time, thought no more about it. Soon after the escape of this splinter, one of the carpal bones came away. Extension was made and hand kept on a splint, which relieved her pain considerably. May 1.—The general condition having greatly improved, I advised an operation, dead bone being readily detected. May 5.—I removed the carpal bones of the second row, and the carpal end of the metacarpal bone of the middle finger, which was carious. The incision was on the dorsal aspect; no tendons were divided. I was assisted in the operation by Drs. Thomson and Carmalt. Patient made a rapid recovery. When I saw her last, at end of the following June, she could sew without difficulty and play on the piano.

CARCINOMA OF THE COLON.

DR. LEWIS A. STIMSON presented a tumor of the transverse colon, which had produced constriction and ultimately occlusion of the canal by the lodgment of foreign bodies within it.

The patient, a gentleman sixty-three years old, of full habit and general good health, had complained for some time of deep-seated pain in the right hypochondrium. Finding himself unable to empty his bowels, he called in his physician, who gave him laxatives and enemata; these proving ineffectual, and the patient's suffering increasing, a consultation was held; the diagnosis of mechanical obstruction was made, and operative interference, beyond the administration of full enemata, was rejected. The constipation persisted, and on the sixth day the patient died quite suddenly in collapse.

On opening the abdomen, the convolutions of the small intestine were found arranged with the greatest regularity in parallel lines in the direction of the axis of the body, those belonging to the lowest part of the ileum lying in the right iliac fossa against the anterior abdominal wall. The peritoneum was injected and covered with a faint exudation, and about a table-

spoonful of reddish serum was found in the peritoneal cavity. The cæcum and colon were distended as far down as the stricture, which occupied a point in the transverse colon between the median line of the body and the cartilages of the right ribs. Beyond this point the colon was contracted and entirely empty.

On dividing the intestine and everting it like a glove-finger, the upper end of the stricture appeared as a rosette about three centimetres in diameter, slightly congested, with an eccentric lumen that would admit only the tip of the little finger, and occluded by three fragments of the endocarp and a pit of an apple. Just beyond the distal end of the stricture were two or three dark submucous collections, the remains probably of interstitial hemorrhages; but at neither end was there any sign of recent hemorrhage or ulceration.

When divided longitudinally, the stricture proved to be nearly one inch long; its canal was tortuous, three-fourths of its wall being formed by the projecting neoplasm, the remaining fourth by a cicatricial tissue occupying the site of the mucous membrane.

Microscopical examination showed the tumor to be of the variety known as cylindrical-celled carcinoma, with an unusually abundant stroma and with firm fibrous prolongations into the sub-peritoneal fat.

VESICO-INTESTINAL FISTULA, LUMBO-COLOTOMY.

Dr. Weir presented a specimen of vesico intestinal fistula, for the relief of which, left lumbo-colotomy had been performed. The patient, aged 43 years, was an ice-dealer who had enjoyed good health until June last, when he experienced difficulty in urination. The history which he gave of the trouble, suggested the possibility of traumatic origin. In 1862, while descending a ladder, he straddled one of the rounds, injuring his perineum, and subsequently passed bloody urine. Shortly afterwards a stricture of the urethra was developed, and the operation of external urethrotomy was performed by the late Dr. Krackowizer. He was told that in order to secure the patency of the canal, it was necessary to use an instrument at stated intervals. This he did for a time, and then as usual neglected himself. There was a strong suspicion, from the color of the urine, its fæcal odor, and the solid matter discharged, that a fistula existed, communicating with the large intestine; but there was a great deal of difficulty in diagnosticating its precise position. Recollecting a case presented by Dr. Krackowizer, in which the existence of such a communication was made out by the injection of ink into the bladder, and its reappearance in the rectum, Dr. Weir determined to resort to a similar expedient. Not wishing to employ ink, in consequence of existing irritation in the bladder, he chose milk. Accordingly, two or three pints of milk were injected into the bladder, while a speculum was placed in the rectum. The experiment, however, was unsatisfactory, as the co-operative expulsive efforts of the patient had been suspended by the etherization resorted to.

By the bimanual examination a tumor was, however, discovered in the left iliac region, and was suspected to involve the upper part of the rectum. The following day milk was again injected into the bladder without the use of an anæsthetic, and was expelled per rectum in a very few moments.

The diagnosis being then reasonably clear that the opening was situated in the descending colon or rectum, the operation of left lumbo-colotomy was performed, Aug. 30, by Bryant's oblique incision.

The man did very well after the operation; his bladder symptoms were markedly relieved, and his intervals of urination lengthened out. Fæcal masses would, however, in the last weeks of his life, escape into the bladder during the night-time. He died with symptoms of phthisis, Nov. 14. At the autopsy there were found tuberculous ulcerations in the small intestines, and some in the large intestine. The small intestines were matted together in the pelvis, and with the thickened adhesions constituted the tumor felt during life. The opening into the bladder, which had an irregular communication with the upper part of the rectum, was capable of admitting the end of the finger.

Dr. Delafield presented specimens illustrating

DIFFERENT FORMS OF CANCER OF THE STOMACH.

Case I.—The patient was a male aged forty-seven, who suffered with vomiting and pain in the stomach for the last eleven months of his life. Two months previous to death he vomited blood quite freely, followed by a coffee-ground material. On examination, a tumor was felt through the abdominal walls in the lower part of the epigastric region. At the autopsy the tumor was found to occupy the pyloric orifice of the stomach entirely within the organ, and acted in that position as a ball-valve.

Case II.—Male, aged fifty. The first symptom, which was pain in the epigastrium, commenced fifteen months before death. Patient never vomited, became cachectic, œdematous, and emaciated. No tumor felt in epigastrium. Liver enlarged. Diagnosis was cancer of liver rather than of stomach. At autopsy there was found a new growth on the anterior part of the stomach, extending outwards into the left lobe of the liver, forming there a cavity through which food penetrated.

Case III.—Female, aged twenty-eight years. First symptoms, vomiting and constipation, occurred fourteen months before death. No special pain about the region of the stomach. A month before death vomiting ceased. No tumor felt in the region of the stomach. No cachexia. Emaciation extreme. Death by starvation. At the autopsy the stomach was dilated and filled with food. Muscular coat thickened. Pylorus narrowed to the size of a goose-quill. No tumor present. There was a cancerous growth in the submucous coat around the pylorus, extending into the mucous and muscular layers. The points of interest in this specimen were: the age of the patient, absence of any tumor, and extreme contraction following such a small amount of deposit.

COMPLETE CONGENITAL DISLOCATION OF THE TIBIA BACKWARDS.

Dr. Mason presented a specimen of complete congenital luxation of the tibia backwards, removed post-mortem from the child of a mulatto, who died at the age of one month. Besides this there was an outward dislocation of the os calcis, the scaphoid and anterior portion of the foot being thrown inwards. He remarked that these cases were easily reduced, and with care would remain so.

Dr. Sayre referred to a case in which a double dislocation of that sort had been reduced by him with good result. The child was now four years old, and had perfect motion in the lower extremities.

SUBMUCOUS UTERINE FIBROID AND ACTUAL CAUTERY.

Dr. Post presented a submucous uterine fibroid, which he had removed by operation two weeks before, from a patient of the Presbyterian Hospital. The patient, aged thirty years, consulted him in October. She stated that three years ago she had a tumor removed from within the vagina. She presented at the vulva a large mass, which could not, on account

of its size, be drawn out. After resorting to various means for its removal, Dr. Post concluded to try the actual cautery. The heated irons were plunged to the depth of four and four and a half inches in different directions. Then with a scissors the accessible parts were cut away, and afterwards a claw-forceps brought the remaining portion of the mass forward, when the pedicle was grasped by the chain of the ecraseur and the whole removed. The tumor was attached to the posterior lip of the cervix, and weighed a little over two pounds.

PERFORATION OF THE APPENDIX VERMIFORMIS.

Dr. Briddon next presented a specimen of perforation of the appendix vermiformis, with the following history: I saw the gentleman from whom this specimen was obtained in consultation with Dr. Theophilus Steele, of this city; he was of Southern birth, well proportioned, and in the prime of manhood. Two years ago he had an attack of what his medical attendants called inflammation of the bowels, and the trouble on that occasion was principally upon the right side.

His present illness began on Sunday morning, Dec. the 3d. At about 4 A.M. he was awakened by severe abdominal pain diffused all over that part, but described as being most severe around the umbilicus; it was constant, but aggravated at frequent intervals by paroxysms of increased severity; the parts were also tender upon pressure. He had had no evacuation from the bowels, had only vomited once or twice; his tongue was moist and only moderately coated; his pulse was only slightly accelerated, and his temperature normal.

I saw him with the doctor on Monday, December the 4th. His decubitus was dorsal, his thighs slightly flexed, his pulse was a little over a hundred, temperature 100, expression anxious; his abdomen was distended, tympanitic, and everywhere exquisitely tender, but most so in the right inguinal region; the last mentioned part was thoroughly examined; it was resonant as the neighboring regions, and no tumor of any kind could be discovered by such manipulations as the patient could tolerate. He had no swelling at any of the usual sites for hernial protrusions, and the question arose whether the symptoms were occasioned by intestinal obstruction due to bands resulting from his previous attack of inflammation, or to extravasation through a perforation of the appendix vermiformis, and a due consideration of all the facts led me to adopt the opinion that extravasation, and not obstruction, was the principal factor. The most prominent feature was the evidence of acute diffuse peritonitis, and its sudden invasion—in fact, I think the symptoms of obstruction were wanting; vomiting had only occurred once or twice, and did not recur after the first day. The treatment adopted was the hypodermic use of morphia in sufficient quantity to control pain, local depletion by the application of a dozen leeches over the right iliac fossa, and the assiduous use of hot fomentations; the faithful use of these means availed nothing, the patient rapidly sank into a condition of collapse, and died at 7 P.M. on the 5th—being sixty-three hours from the invasion of the disease.

Autopsy was made sixteen hours after death. Rigor mortis was well marked, abdomen was distended and tympanitic, no tumor could be detected in the iliac region; on making a section of the abdominal walls a large escape of gas, having a strong feculent odor, occurred, and this was followed by a considerable quantity of fluid, stained and mixed with fæces; the omentum was adherent to the intestines, which were largely inflated, but the large intestine was more distended than the small; the convolutions of the lower portion of the ileum were matted together and to the neighborhood of the cæcum by recent lymph; on stripping some of this deposit from the ileum ten or twelve inches from its termination, an irregular spot presented itself that was a dark slate color, and looked as if it were in a condition of sphacelus. A subsequent careful examination of this part showed the opposed mucous surface intact.

On removing the cæcum, a perforation was found in its appendix, about two inches and a half from its junction with the gut. The perforation was circular, about a third of an inch in diameter, and exposed to view a foreign body which I have left *in situ*. It will be seen that it is impacted near the extremity of the appendix, that it is circular or ovoid in form, and from examination of its exposed surface, and the percussion note elicited by tapping it with the back of a knife, I am led to regard it as a plum-stone.

Remarks.—This is the second specimen that I have presented within a year, of the parts involved in fatal perforation of the appendix cæci. The first occurred in the practice of Dr. Hadden, of this city, and had many features in common with the present. In both there was large abdominal effusion, with general diffuse peritonitis, and rapid collapse; in neither were the conservative processes that eventuate in abscess and possible recovery successful. And I think that such an event will always be determined by the empty or full state of the intestine at the moment that perforation occurs. If the escape of fæces be exceedingly small, nature may wall it in by abscess; if, on the contrary, it be large, fatal diffuse peritonitis must be inevitable. Certainly, in both of these cases the resources of nature were inadequate; the products of inflammation were broadcast, not concentrated to the immediate neighborhood of the lesion. There was not even the semblance of incipient abscess.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting, December 15, 1876.

Dr. Charles M. Allin, President, in the Chair.

PREVENTIVE MEDICINE AND LONGEVITY.

Dr. W. DeForest Day brought before the Association certain facts which had a bearing upon the above subject, and of those the more practical and important were the following:

RECORDS OF THE BOARD OF HEALTH WITH REGARD TO YOUNG CHILDREN.

Dr. Day, in consulting the records of the Board of Health as Sanitary Superintendent, had found that the condition of young children with regard to life was a most sensitive gauge for determining the presence and effect of deleterious influences. Of the total deaths occurring in the city, the mortality under five years of age, between the years of 1867 and 1874, had been found to vary from 52.99 to 48.81 *per centum*. The mortality, except in epidemics, had not varied very much from year to year.

CIRCUMSTANCES FAVORING INCREASE OF MORTALITY IN GENERAL.

Overcrowding was regarded as the sum of all sanitary evils, and an outgrowth of civilization, with its advantages and disadvantages. Insufficient house accommodations produced disease, pauperism, and crime, until vice became second nature, and morality, virtue, truth, and honesty were mere names. New York differed from all other cities in having no true

suburban districts, and the buildings were constructed upon the plan of getting the greatest gain, rather than in consideration of the welfare of the occupants. It was stated that there was not a single tenement-house in the city of New York which had been built with reference to the removal of garbage. The tenement-houses numbered about 25,000, and perhaps the most crying evil among them was the want of proper ventilation. No plan of ventilation had yet been devised which was automatic, which operated independent of intelligent supervision. Such provision for ventilation was the more important, because the habitual inhalation of foul air soon caused an insensibility to its deleterious effects; hence they became prolonged.

SMALL-POX AND VACCINATION.

For the prevention of small-pox two things were regarded as necessary: 1. to press vaccination; and, 2, to make the small-pox hospital as comfortable as possible, thus wiping out the dread people might have of entering it for treatment.

With regard to compulsory vaccination, Dr. Day took no positive position, but stated the following: In the city of New York, according to the latest report to the Board of Health, there were four cases of small-pox. In London, where compulsory vaccination was in accordance with the law, the latest report, given at about the same time of the report in New York, noted fifty-three deaths from small-pox. In London, however, revaccination was not practised.

DISINFECTANTS.

With regard to measles, scarlet-fever, typhoid and typhus fevers, whooping-cough, and diphtheria, disinfectants were regarded as useful in a certain way. They were valuable in small-pox after the patient had been removed from the room or house; they were valuable in typhoid and diphtheria for disinfecting the discharges—sputa and excreta. They were believed to be valueless, so far as killing the germs of the disease was concerned, while the patient remained in the room; for anything which would kill the germs would also kill the patient.

HOSPITAL DEFICIENCIES.

There was no hospital in the city of New York which would receive a case of diphtheria or any other contagious disease aside from small-pox and syphilis. That fact alone contributed largely to the increase of the death-rate, as could be readily understood, and the remedy was apparent.

CONTAGIOUS DISEASES AND PUBLIC SCHOOLS.

It was believed that the question of preventing the introduction and spread of contagious diseases in the public schools depended more upon the discrimination and good sense of the people than upon anything that could be effected by legislation. The influence of the physician could be made most powerful in that direction, and he would be able to control certain matters which it would be impossible to reach by legal enactments.

MALARIA.

In the year 1868 there were registered 95 deaths from malarial fever; in 1869, 128; in 1870, 213; in 1871, 291; in 1872, 348; in 1873, 282; in 1874, 295; in 1875, 275. About one year ago, at the direction of the Board of Health, a circular was issued to a certain number of physicians, with the view of obtaining information upon the subject. For certain reasons, it became necessary to abandon that method of acquiring information. The plan of writing to every physician who reported a death from malarial fever was then adopted, and he was asked to give information as to whether the disease was contracted in the city; whether, in surviving cases, it was really malarious or simply a vague malaise and depression that were cured by quinine and change of air; whether it was distinctly periodical. These observations were confined to the city below Harlem River; for above that point malaria was common and undoubted. The result had been that only forty cases had been put down upon the map as having died from malarial fever contracted in New York. The method of obtaining information was imperfect, doubtless, but it was the best that the Board had been able to employ.

MAP SHOWING THE DISTRIBUTION OF DIPHTHERIA.

Dr. Day exhibited several maps upon which was shown where every case of certain diseases had occurred, and it was found that diphtheria had not followed the old water-courses in the city, nor had any cases occurred upon made land. It had been found that it occurred most largely in the crowded portions of the city. The exhibit upon the map was based upon fatal cases, believing that there was less liability to error in diagnosis when the case proved fatal than when recovery took place.

Dr. E. G. Loring, in remarking upon the subject of sewerage and traps, referred to by the author of the paper, called attention to the use of peppermint essence as one of the most valuable and certain agents that could be employed in detecting whether, in any part of a house or sewers connected with it, there was any defect in the pipes leading from the water-closets. Pour an ounce or two of the essence into the basin, let a gush of water fall upon it and carry it through the pipes, and if there was any leak it could be detected by the presence of the odor of peppermint in the room, or closet, or sewer near where the imperfection in the conducting pipe existed.

After some remarks by Dr. M. Morris, and a vote of thanks to Dr. Day for his address, the Association adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Stated Meeting, January 8, 1877.

Dr. John C. Peters, President, in the Chair.

REFLEX-MOTOR SYMPTOMS.

Dr. Eugene Dupuy presented his views regarding the physiological pathology, diagnosis, and treatment of such reflex-motor symptoms as paralysis and contractions. The paralysis and contractions were regarded as reflex symptoms because they had been developed by reflex processes; that the primary disease was not in the nervous centres, but at the peripheral nerve terminations.

Brown-Séquard had attempted to explain the phenomena by the theory that the paralysis was due to contraction of the blood-vessels; that the contraction, after a time, produced an alteration in the tissue of the spinal cord; hence paralysis followed. That theory had not only been questioned, but even the existence of reflex paralysis had been disputed. It was regarded necessary, therefore, to first establish the claim the disease had to a recognition. Dr. Dupuy regarded its existence as undoubted, and maintained that reflex paralysis and contraction belonged to the same category, and that the motor symptoms embraced both conditions. It was stated that almost every part of the body, including the nerves of special sense, might be affected by reflex paralysis.

There were certain cases of the disease following irritation of the nerves of the pleura; Lépine had reported a number of cases in which hemiplegia had occurred in consequence of pneumonia; contraction had been produced by strangulated hernia, sometimes in one wrist, sometimes in the other, and generally upon the opposite side; paralysis had also followed disease of the kidney; renal calculus had produced paralysis, which was relieved as soon as the concretion had passed; the reflex disease had been seen associated with cataract; and genital irritation was a prolific source of such phenomena. In the cases reported by Prof. Sayre, the contraction had manifested itself quite uniformly in the muscles of the legs and arms. As preliminary to giving his own explanation of the reflex phenomena, Dr. Dupuy referred to the different theories that had been advanced. Jackson and Weir Mitchell had brought forward the theory of exhaustion; the nerve-centres and the nerves themselves became exhausted; therefore, paralysis ensued. Dr. Dupuy did not accept that theory, for, when exhaustion produced paralysis, it was due to loss of irritability, and, when the nerve-centres had recuperated, the same phenomena might be reproduced, and would be followed by the same result. That was not observed in reflex paralysis and contractures.

McDonnell, of Dublin, had explained the disease on the ground of inhibitory action, and conceived that the nervous centres were placed in a state of paralysis suddenly. His experiments had been made upon snakes, and he had found that when the animal was struck upon the tail it instantly became stiff and apparently dead.

Another explanation had been given by a German, who maintained that organic changes took place in the spinal cord, at a point corresponding with that at which the nerves supplying the affected part were given off, the nerve itself being healthy. That theory had been deduced from experiments in which the sciatic nerve had been cauterized, and the cauterization had been followed by central changes, spots of softening, etc., at a level with the origin of the nerve. Dr. Dupuy, as well as other experimenters, had been unable to obtain the results claimed by the advocate of the above theory, and he was unable to account for the different results obtained by different experimenters. The results as reported were believed to be undoubted, but their explanation was not clear.

Dr. Dupuy believed, however, that it was possible to explain the phenomena of reflex paralysis and contractions, and referred the cause to dilatation of blood-vessels, with subsequent arrest of the nutrition of the nerve elements; that is, peripheral irritations produced changes in the nerve-centres which regulated the blood-supply. The change in the central blood-vessels produced by irritation of the peripheral extremity of a sensitive, even a motor nerve, was of dilatation, and not a contraction. Contraction was only fugitive, and the dilatation might be above or below, as well as at the point at which the nerves took their origin, and was lasting. The first effect of the peripheral irritation was contraction; but that continued only for a very short time, and then ensued the dilatation, appearing gradually, and increasing until pulsation ceased, when the blood in the veins and arteries would appear of the same color. Such were the phenomena observed in the vessels of the pia mater when the kidneys were irritated; and when the phenomena were produced in the spinal cord, sufficient blood was retained to sustain life, but not to prevent changes in nutrition such as might give rise to impairment of the organic structure. Dr. Dupuy denominated the condition as paralysis due to fatigue of the blood-vessels. The fact that cure did not follow within a short time after the removal of the irritation did not show that the disease was not reflex, for the tendency was to produce changes which could not be removed within twenty-four hours; and, besides, there was the habit of the disease to be overcome.

Dr. Jacobi remarked that when the term reflex paralysis first appeared in medical literature, he was not inclined to accept the theory of the term itself. The theory had been, and was, that paralysis was the result of external irritation. He was prepared to admit and was able to understand how peripheral irritation could be the cause of central irritation; he could readily believe that contractions or convulsions might result from external irritation, but he was not able to understand how paralysis could be the immediate result of external irritation. He had supposed that we were to look for some central change in the shape of irritation which gave rise to the paralysis following external irritation. Dilatation of the blood-vessels was due, not to paralysis, but irritation of the sympathetic; dilatation of the central blood-vessels occurred as the result of irritation of the peripheral extremities of the vaso-motor nerves, and the paralysis of the various parts of the body resulted secondarily from the irritation developed by such dilated blood-vessels. He was inclined to believe in paralysis due to irritation caused by a condition which was produced by a primary peripheral irritation, and not in paralysis as being the immediate result of external irritation.

Dr. Mary Putnam-Jacobi remarked, that by the terms of the question reflex paralysis it was to be supposed that an irritation went to the centre, but from the centre nothing came; the paralysis must terminate in the nerve-centres. She regarded the theory advanced by Dr. Dupuy as one to be carefully considered, for he attributed the paralysis not to the effects produced by compression of the nerve elements by the dilated blood-vessels, but rather to an arrest of nutritive changes between them on account of the stasis of blood. She asked the question, if the paralysis occupied several months, did it not remove the cause beyond mere vascular conditions?

Dr. Spitzka inclined to the belief that central lesion was the cause of the paralysis.

Dr. Sayre, although making no pretensions in the way of giving scientific and incomprehensible explanations, was not able to understand how, in those cases in which total and rapid relief followed removal of the peripheral irritation, the paralysis could be due to organic changes occurring in the nervous centres.

Dr. Jacobi believed that a large majority of the cases reported by Dr. Sayre were such as manifested no paralysis at all, but rather a protracted convulsive movement; he therefore believed that the cases went to the support of his theory concerning the real cause of phenomena.

Dr. Sayre remarked that symptoms, both spastic and paralytic, had been present in his cases, and that both had been removed by a removal of the external irritation, commonly some form of genital irritation.

Dr. Otis related a case which might, perhaps, add something. A patient had loss of sensibility of the right leg, and it had existed for several months. He was found to be suffering from several urethral strictures, not close, and, during the examination and subsequent to it, he suffered pain in the leg which had been so long without sensation. An operation was made, the stricture relieved; the sensibility of the leg was almost at once restored, and had remained complete.

Correspondence.

DISLOCATION OF THE PATELLA.

To the Editor of The Medical Record.

Sir:—Upon reading Dr. Dougherty's account of a recent and rare form of dislocation of the patella, published in the last number of the Record, I am impressed with the belief that the following might be of interest in connection with the same. On the evening of October 30, 1874, I received a telegram from Chester, Orange Co., to immediately visit Matthew Doyle's house, and take charge of a "fractured thigh."

Doyle had sent for Dr. C. P. Smith, of Chester, and the doctor being absent, the messenger telegraphed for me.

On arriving at Doyle's, I found a boy aged nine years lying upon his back in bed.

The right limb was the one injured, and on inspection presented a peculiar appearance. The deformity consisted in a great conoidal prominence over the knee-joint, which I at once recognized as the patella set up on its inner edge. The leg was not in a condition of "extreme extension," but seemed flexed from a direct line, possibly a few degrees.

After making sure of the character of the injury, and to relieve the strain upon the patella preparatory to reduction, I seized his ankle in my right hand, and raised it from the bed; then I placed my left hand over the patella and grasped the knee; then by depressing the knee forcibly with one hand, and raising the heel with the other, I found it a very easy matter to rotate the patella to its normal bed.

Of course in a case occurring in a strong adult it might be much more difficult to reduce, but Doyle's case did not detain me in the house to exceed five minutes all told.

The boy had injured himself while wrestling with a playmate, and being thrown violently down, and the limb being so distorted, his friends at once believed that he had sustained a fracture of the thigh.

I have never seen the boy since the night upon which I reduced the dislocation, but Dr. Smith assured me that he directly recovered the perfect use of the injured limb.

Respectfully,
Wm. B. Bradner.

Warwick, Orange Co., N. Y., Jan. 4, 1877.

CINCHO-QUININE.

To the Editor of The Medical Record.

Sir:—In your issue of 6th inst. Dr. J. B. Mattison records his experience in favor of cincho-quinine as a substitute, or rather superseder of the old and tried sulphate of quinine. As my experience is at variance with his, allow me to ask you "*Audi alteram partem.*" When I consider the amount of advertising which cincho-quinine has had and the number of recommendations and puffs obtained for it, I am quite prepared to believe, quoting Dr. M., "that nothing is needed, *save clinical evidence*, to prove that it possesses, in large degree, the valuable properties of the universally used cinchona." The italics are mine.

Induced by advertisements, I was induced in the spring of 1875 to give it a trial in malarial cases. It was given sometimes as a powder with white sugar, but mostly in solution. It is certainly much less bitter than quinine, and in any dose given did not produce symptoms well known under the term cinchonism. I gave it in the same way and in the same doses by weight, as I had found quinine promptly antiperiodic. Contrary to Dr. M.'s experience, I found it produced some gastric disturbance in nearly all cases, and was much complained of in about one third. This would not have been a great disadvantage had it done the work, but it did not at all satisfactorily. It had a perceptible and marked effect upon the paroxysms; but this was only partial, not complete, and in a few days they would begin to recur. I now resorted to double my usual doses, with the effect of producing very disagreeable and rather prolonged gastric disturbance in a large majority of cases. The check given was now more decided, but each case was about sure to relapse in a week or ten days, having been only indifferently well in the meantime. I was led to believe that it was *absolutely unreliable* for radical cure, and quite *inferior to quinine* in efficacy. I hence abandoned it for quinine in adults; but, on account of the taste, preferred cincho-quinine for children. This, too, I soon found it expedient to abandon for reasons the same as in adult cases. I think, however, resort to it for economic reasons will be "penny wise and pound foolish."

As a *tonic*, did not give it an extended trial; but, from *à priori* reasons, chiefly its producing gastric disturbance, I would expect little. If a cheaper substitute for quinine be wanted, we have sulphate or muriate of cinchona, available at from one-third to one-half the price of cincho-quinine. Is the latter any better than any of the simple bitters?

Respectfully,
Alex. Hamilton.

288 Madison St., N. Y., Jan 8, 1877.

INACCURACY OF GLASS GRADUATES.

To the Editor of The Medical Record.

New York City, January 3, 1877.

Sir:—Having occasion some time ago to visit a glass manufacturer's establishment, I observed whilst there, a workman marking the lines on, or rather graduating glass measures, by holding them against a revolving wheel, and to my surprise without any method of adjusting the lines, excepting such as his own judgment would indicate. It appeared at the time so absurd, that it elicited the question, "Is it possible to mark them in that way, so that they will measure correctly?" On which he replied, that he was so accustomed to that kind of work, that he could mark them near enough for all practical purposes.

At that time I purchased a half ounce graduated measure, cut so as to measure half drachms.

Since the adoption of the Metrical System by the N. Y. Co. Med. Soc., I have tested the measure with distilled water at the temperature of 60°, and find it to read by weight as follows:—

	The following are the weights the measure ought to give in grains.	The following are the weights the measure did give in grains.
f ℥ ss	28.48	38.57
f ℥ i	56.96	66.54
f ℥ jss	85.44	93.39
f ℥ ij	113.9-	123.44
f ℥ ijss	142.46	151.52

The remaining graduations were equally inaccurate.

Very truly yours, etc.,
Thos. H. Holgate, M.D.

263 West 15th St.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Jan. 7th to Jan. 13th, 1877.

BROWN, H. E., Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Wadsworth, N. Y. H. S. O. 5, Mil. Div. of the Atlantic, Jan. 6, 1877.

WRIGHT, J. J. B., Colonel and Surgeon. Retired from active service to date December 3, 1876, by direction of the President, in conformity with Sec. 1244, Revised Statutes. S. O. 2, A. G. O., Jan. 5, 1877; and S. O. 6, A. G. O., Jan. 10, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending January 13, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Jan. 6.....	0	9	82	2	9	43	0
" 13.....	1	6	64	1	6	39	1

DEATH FROM CHLOROFORM, IN WHICH ALL THE USUAL PRECAUTIONS WERE TAKEN TO GUARD AGAINST IT.—A man, aged thirty-three years, was admitted into the Charing Cross Hospital (London), Dec. 20, with a recent and irreducible, although not strangulated, hernia. After the usual efforts at reduction in the warm bath, etc., the administration of chloroform was advised. Dec. 22. There had been no vomiting. From the time of his admission until his death the patient was kept upon liquid diet. The *Brit. Med. Journ.* (December 23, 1876), in giving the details of the mode of death, says: On Friday, he had his half-pint of beef-tea at one o'clock, and was ordered to have no more food after that hour, as the chloroform administration was fixed for the evening. The man lay quietly in bed, and did not complain of exhaustion, but asked to have as little chloroform as might be, saying that he was not a strong man. He had been a publican, but there is no evidence as to his habits. Shortly after eight o'clock, the administration was commenced by one of the assistant resident medical officers, who was quite accustomed to the duty. The patient lay in bed, loosely clad. The heart was examined by the stethoscope, and considered to be normal, and no stimulant was administered. The anæsthetic was given on folded lint, one-half drachm being poured on at a time. At the end of four or five minutes, when the fifth half drachm had been poured out, the taxis not having been commenced, and there having been no marked struggling, the face suddenly became livid; and the administrator, having his finger on the pulse, noticed it to become feeble, at the same time that respiration became slightly stertorous. The chloroform was at once removed, a pillow was placed under the patient's shoulders, so that the head fell rather backwards, the tongue was drawn forward by forceps, and artificial respiration, by Sylvester's method, was commenced. As soon as possible, two ounces of brandy, with warm water, were injected into the rectum; the chest was also flapped with wet towels, and the extremities rubbed and warmed. The patient, however, gave no sign of rallying, and ceased to breathe in the course of three or four minutes from his seizure. Later on, faradism was applied to the phrenic nerve, and artificial respiration was continued for an hour, but without result. At the post-mortem examination, the lungs and brain were found congested. The heart was large, and its right cavities were full of dark blood. The right ventricle was noted to be thinner than normal, and was overlaid with fat. There was no naked-eye evidence of fatty degeneration, and the microscope was not used. The liver was fatty. An inquest was held, and a verdict returned to the effect "that deceased died from the effects of chloroform, but that it was properly administered."

PREVENTION OF AFTER-PAINS.—Dr. Le Diberder (*Ann. de Gynécolog.*) believes that ergot suitably administered has the power of preventing after-pains. He gives half a drachm in divided doses directly after the expulsion of the placenta, with the object of bringing about a firm and consistent contraction of the uterus in place of the alternate contractions and relaxations to which he says after-pains are due. The *Dublin Med. Press and Circ.*, in commenting upon this statement, calls attention to the opinion of Sir Charles Locock, that after-pains were due to the retention of coagula, and that firm manual pressure upon the uterus to promote their expulsion was never followed by after-pains.

A WELL-DESERVED COMPLIMENT TO DR. JAMES O. POND.—At a stated meeting of the New York Academy of Medicine, held January 4, 1877, a committee, consisting of Drs. Wm. Detmold and G. M. Smith, presented the following preamble and resolutions, which were unanimously adopted:

Whereas, Dr. James O. Pond, having attained the age of eighty six years, and having concluded a service of twenty-nine consecutive years as Treasurer of the New York Academy of Medicine, has declined to be a candidate for re-election; therefore,

Resolved, That the Academy desires to place on prominent record its warm appreciation of his long and faithful interest in the Association.

Resolved, That as one of the founders of the Academy in 1847, as one of the incorporators in 1851, as Treasurer since 1848, he has, from the inception of the Association to the present moment, manifested a zeal in the welfare of the Society which has contributed largely to its success.

Resolved, That in the onerous duties of the Treasurership he has always held the unbounded confidence of the Academy, and his example for courtesy, efficiency, and integrity, will ever remain as a model for future incumbents of the office.

Resolved, That the Academy wish him length of years, with health to enjoy the close of a long and honorable career.

Resolved, That a copy of this preamble and of these resolutions be entered in full on the minutes of the Academy, be published in the medical journals of this city, and that a suitably engrossed and authenticated copy be presented to Dr. Pond.

S. S. PURPLE, M.D., *President.*
W. T. WHITE, M.D., *Secretary.*

THE CONDITION OF OUR HOSPITALS AND CHARITABLE INSTITUTIONS.—At the recent monthly meeting of the State Charities Aid Association, the Committee on Children reported that the Infants' Hospital on Randall's Island was filled with mothers having children under three years of age, there being no restriction to

the length of time these women can remain, provided they take care of their own children. Some employment should be provided for such women, as they are idle a great part of the time. Fifty-one infants are boarded out in Westchester county. Among these the death rate was lower than at Randall's Island. There were one hundred and seventy-nine children at the Idiot Asylum. The building was scrupulously clean, and the children were well cared for. The schools re-established in October were also in a satisfactory condition. The Committee on Out-door Relief reported that, owing to the representations of its sub-committee concerning the great evil connected with station-house lodgings, the Police Commissioners had closed the station-houses on the 5th of November. In order to provide for worthy persons in need of shelter at night, several gentlemen of this committee, in connection with others not members, had formed the Night Refuge Association, which, although open only a few nights, was now receiving nearly one hundred and fifty lodgers nightly.

The Kings County Visiting Committee reported a few of the repairs which were most needed in the Lunatic Asylum building. The walls and ceiling of many of the rooms were black and dirty; the bread was sour and dark colored, and since this is the one article of food given in liberal quantities, its bad quality is especially to be regretted. The diseased and imbecile occupants of the basement of the Female Almshouse have been removed to another building. Complaints of sour bread and green potatoes were still received; the inmates complained of cold, and the laundry arrangements were found very poor. An organization for out-door relief, with full corps of visitors, has been formed.

Officers of New York Pathological Society.—The following officers have been elected for the ensuing year: Dr. E. G. Janeway, President; Dr. E. L. Keyes, Vice-President; Dr. George F. Shrady, Secretary; and Dr. John H. Hinton, Treasurer.

The Rahway Chloroform Tragedy.—The coroner's jury brought in the following verdict concerning the recent death by chloroform in Rahway: "We believe that the death of Walter E. Lewis was caused by the administration of chloroform for the purpose of extracting a tooth, and that it was administered by Dr. Warren E. Westlake without a proper examination of the patient; and we consider it gross negligence on the part of the said Dr. Westlake in not making the said examination, and not knowing the nature of the anæsthetic used."

The Brooklyn Insane Asylum.—The project concerning the foundation of the Brooklyn Insane Asylum is beginning to take a definite shape. In order to take off the obnoxiousness which associates itself with the name of an Insane Asylum, it is proposed that the institution be known as the Hospital for Nervous Diseases.

Albany Medical College.—As might have been expected, the Common Council of Albany has refused not only to allow the faculty of the Albany Medical College the use of their building free from rent, but has directed the Corporation Counsel to take the proper measures to insure the payment of all arrearages, or turn over the property to the city authorities without delay.

The Spread of Disease.—Dr. Cornelius Fox, medical officer of health, London, gives some remarkable illustrations of the way in which infectious diseases are spread: "In one case a publican's wife attended to her children ill with scarlet fever, and to her husband's customers with equal assiduity and impartiality. As a consequence, the disease soon ran riot throughout the neighborhood. Another instance was the refusal to close temporarily a village school where measles was prevalent. In one case small-pox existed in a restaurant, 'the characteristic odor of the disease pervading the bar where men stood drinking.' Again, a tailor made clothes for people while enteric fever prevailed in his house, and thus distributed the infection. Several other instances are given by Dr. Fox, all of which demonstrate the need of granting greater powers to sanitary bodies."

The American Bi-Weekly.—*The American Medical Weekly*, of Louisville, Ky., has been changed to a bi-weekly, with an appropriate title. The editor, Dr. E. S. Gaillard, gives very good reasons for the course pursued, and presents his readers with a model journal of its kind. The present issue is so much of an improvement upon the older ones in its make-up, character, and variety of contents, that it cannot fail to give universal satisfaction. We cordially wish Dr. Gaillard success in his new enterprise.

Birth, Marriage, and Death Statistics.—The Board of Health has sent a circular to clergymen, magistrates, physicians, nurses, etc., requesting them to comply with the sanitary code in making correct returns of births, marriages, and deaths that come under their direction. Those who fail to comply with this regulation are to be promptly prosecuted, and if convicted will be subject to a fine of from $10 to $200, or imprisonment in the county jail for a term not to exceed thirty days.

Yellow Fever in Savannah, Ga.—*The American Bi-Weekly* asks: "Can any one in this city give any information as to the facts of the yellow-fever epidemic of 1876?" Pending an answer we would respectfully refer to the report on that subject by Dr. Octavius A. White, in The Medical Record for Jan. 13, page 27.

Death of Hermann Althof, M.D.—Dr. Althof, a distinguished Ophthalmologist of the city, and one of the Surgeons to the New York Eye and Ear Infirmary, died of erysipelas, on Sunday, January 1 th, after three days' illness, aged 41 years. At the funeral, eulogies were pronounced upon the deceased by Drs. A. Jacobi and Edward Curtis. His remains were interred in Greenwood.

Tetanus and Hypodermic injection of Morphine.—A case of death from tetanus following the hypodermic injection of morphine is reported in a recent number of the *Lancet*, Dec. 16, 1876.

To Decolorize Tincture of Iodine.—Rub into it a crystal of hypo sulphite of sodium.

Typhoid Fever is steadily subsiding in Paris.

Homœopathic Medical College in London.—Steps are being taken for the establishment of a Homœopathic school in London.

The Originator of the so-called Banting System, Mr. William Harvey, of London, is dead.

Artic Expedition and Scurvy.—And now an attempt is being made to prove that lime-juice has no special effect in the prevention of scurvy.

The Clinic.—Dr. Roberts Bartholow, of Cincinnati, succeeds Dr. Longworth as editor-in-chief of this journal.

Solvent for Salicylic Acid.—Take of salicylic acid ℥ ij.; sol. acetat. ammon. ℥ ij.; and water ℥ vi. M. One ounce of this solution contains 15 grains.

Original Communications.

ON SOME CONDITIONS, PHYSICAL AND RATIONAL, IN EFFUSIONS OF THE PLEURA.

CONSIDERED WITH REFERENCE TO THORACENTESIS, FOLLOWED BY AN INQUIRY INTO THE CAUSES WHICH HAVE PRODUCED SUDDEN DEATH AFTER THIS OPERATION.*

By BEVERLEY ROBINSON, M.D.,

SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL (DEPART. OF THE THROAT). ONE OF THE PHYSICIANS TO CHARITY] HOSPITAL, NEW YORK.

Part I.

The great value of thoracentesis in the treatment of pleuritic effusions was admitted by almost all practitioners of medicine, when a few cases of sudden death, occurring within two years, either during, or shortly after tapping the pleura, has given to this procedure fresh interest, and made the time and opportunity of operation an eminently debatable question. From the period Trousseau, in France, and Bowditch, in the United States, had brilliantly inaugurated new methods of puncturing the chest-walls to that auspicious moment when Dieulafoy, Potain, and Traube had employed, with entire success, the improved aspirator, in multiple cases of pleuritis, there were continual accessions to the ranks of those who willingly performed thoracentesis. There were of course detractions from the operation, as there are, and always will be, from all advances in medical and surgical science. Many objections were made to it, many limitations assigned, many dangers pointed out. By degrees, however, opponents, contra-indications, and risks disappeared, until, finally, not a few among us held the conviction, that aspiration could be made with almost perfect safety in all effusions into the chest, and usually with immediate and beneficial results. Again we are called upon to consider the issues involved, and to determine how far, with our actual knowledge, we are justified in reporting thoracentesis to be a satisfactory operation, in view of its probable and possible results.

In order to estimate this subject judiciously, but briefly, I shall scrutinize with care only those propositions which appear to contain mooted points. Those questions which have been decided already by the united weight of recognized authorities I shall refer to in a few words, and merely when the sequence of my remarks requires it.

a. Thoracentesis should be performed so soon as practicable, *in all cases*, when there is imminent danger to life from the presence of a pleuritic effusion. The indication to operate, under these circumstances, is so evident and imperative that the unanimous testimony of the profession has endorsed its absolute propriety, and no argument is used to strengthen an unassailable position.

b. This operation must be made without delay, *in all cases*, when the effusion is very large. And this rule, too, is absolute, and is in no wise invalidated—either by the nature of the liquid contained in the pleural cavity, or the time it has taken to form. Whilst I hold the second rule enunciated to be true without limitation, such is not an universal opinion, and needs, in consequence, a fair presentation, so as to make it generally acceptable. I shall first consider those instances where the effusion is of serous or serofibrinous nature, has been formed by slow degrees, and where the functional troubles are insignificant. These are not the cases which cause alarm. Frequently they remain undetected, so slight are the respiratory troubles which they occasion. And when, by reason of persistent cough, or febrile disturbance, rather than by due appreciation of the consequences of this condition, a patient thus affected consults a physician, the intra-thoracic effusion is too apt to be slighted. Because it does not visibly and greatly interfere with accomplishment of normal function, danger is not thought of, and mild therapeutic measures are continued. And yet these latent cases of pleurisy are precisely those in which the effusion often reaches the highest point possible, and against which we should be most on our guard. I have seen the lung on the affected side pressed against the vertebral column, the liver and spleen pushed far down into the abdominal cavity, and the heart displaced to a very considerable degree. Under these circumstances many sudden deaths have been recorded by Cruveilhier, Chomel, Aran, and others. These facts were for a time ignored, or flatly denied, owing to a false impression which existed, that simple pleurisy never leads to a sad termination. This erroneous law was first promulgated by Louis. And he and many of his disciples believed idiopathic pleurisy to be ever a mild disease, attended with no risks. Great credit is, therefore, due to Trousseau for having demonstrated conclusively the errors into which Louis had fallen. Numerous autopsies made by him and others have conclusively shown that fatal results are directly occasioned by an excessive pleuritic effusion. These deaths were due to syncope, or to asphyxia. Whenever death took place from the first of these causes, the heart was found, upon opening the chest-walls, considerably displaced from its normal position, and the aorta and other great vessels turned at right angles, or twisted upon themselves. With the circulation thus mechanically obstructed, it is readily understood how even a slight effort, or emotion, might lead to complete and sudden arrest of vitality. I should also cite under this head a few cases where cardiac or vascular thrombosis have been found. And we can readily appreciate in a disease, where hyperinosis is common, the great liability to the formation of these coagula. Whenever death has resulted from asphyxia, the fluid, after completely compressing the lung of the affected side, had pushed aside the mediastinum and encroached so much upon the lung of the other side as to leave no portion of organ in which hematosis might be adequately performed. In these latter days, pneumonia serosa (Traube) has also explained several cases of sudden death. And at the autopsy the lesions of acute œdema have been found in the lung of the non-affected side. If now sudden deaths do frequently take place in the natural course of a pleurisy of latent type, where the effusion has become very large, and if the post-mortem conditions distinctly show that the presence of fluid in the pleural cavity on either side has been a direct, efficient cause of their production, are we at all justified in delaying to perform an operation which shall surely ward off such occurrences? Evidently not, unless the operation itself be dangerous or objectionable. And this is *not* true, as will be proven further on. Again, if it be admitted that our second law holds good *a fortiori*, it is apparent if the effusion be formed

* Read before the New York Academy of Medicine, January 4th, 1877.

more rapidly, and the functional troubles are considerable, or if the liquid be purulent in character, there is still more urgent necessity to rid the patient of it by a similar operation. What then are the physical signs which may be relied upon as pathognomonic of effusion into the pleural cavity?

Formerly it was deemed an easy matter to determine the existence of a pleural effusion, and more particularly was this supposed to be true when the quantity of liquid was considerable. And whilst we were well aware how little rational signs could be depended on to give us accurate knowledge in this matter, in auscultation and percussion it was believed we had means at our command which would enable us to declare positively whether or not fluid is present, and, further, what the amount of it is. Since the publication of an exhaustive paper by M. Bouilly,* entitled "Researches upon the Relations which exist between the Signs of Pleurisy and the Quantity of Effusion," I have been led to believe that one is frequently induced into error; that it is difficult to draw correct inferences from one patient to another, or with the same patient and same signs to count absolutely upon like presence, nature, and abundance of liquid in the pleura. In fact, there are examples where perfect certainty can only be established by an exploratory puncture made with a capillary needle. When, however, this method is opposed by the views of the attendant physician, upon what physical signs may we rely most securely to make known the nature and limit of the thoracic contents? Are all essential? Or may a few be taken with equal guaranty, though others be absent? To this it can now be answered categorically, that if two be made out with precision, the rest are relatively unimportant, and without these we must remain in a state of uncertainty. These signs are, first: *absolute dullness over the anterior portion of the chest, except perhaps under the clavicle*, where a note of high, tympanitic pitch may be detected.

Dullness existing in the chest laterally, or posteriorly, may be found united with loss of thoracic vibrations, and exaggerated development of one side of the chest may be present, and yet may be due to the existence of a malady other than pleurisy, with effusion. Such cases have been observed by Dieulafoy, Dechambre, Hénocque, Sée, Martineau, Tardieu, and others. And, on the other hand, Dr. Gueneau de Mussy† has pointed out that in certain instances of effusion the whole of the affected side may give a tympanitic sound on percussion. He has even seen a case where this sound succeeded to dullness, although the stethoscopic signs pointed to the existence of liquid. In his estimation, the increased resonance is due to diminished tension of the thoracic wall which renders it more vibratile.

Second: *Complete absence of respiratory, or vocal sounds, either healthy or morbid, in an extent corresponding with that where absolute dullness is present.* If these two physical signs, then, be discovered in the region mentioned, not only may we affirm most positively the existence of effusion in the chest, but indeed of an *abundant* effusion.

The other physical signs made known by palpation, inspection, mensuration, and auscultation may, or may not exist; but, in any event, they are not of equal value with the preceding, nor do they, if present, *always* lend additional assurance of accuracy of diagnosis. Let us now suppose that the existence of fluid is certain, and its quantity is approximatively known, it may be of importance to determine what the nature of it is, whether of serous, or sero-fibrinous, or purulent nature. Formerly it was held, when the effusion had persisted several weeks without notable diminution, and to increased duration of disease at this height were added such symptoms as high fever and intense pain, great and progressive emaciation, with proportionate loss of power, the diagnosis of a purulent exudation was rendered probable. This opinion became much more affirmative if œdema, localized to the affected side, developed itself, and a diagnosis of purulent effusion was made, without much regard to the extent of the subcutaneous infiltration. It might exist over one entire side of the thoracic cavity, or it might be manifest upon and limited to small areas. In either case the diagnosis was equally positive, and almost invariably a puncture or incision on that side of the thorax justified its wisdom. According to our latest information on this subject, the sign just mentioned, viz., localized œdema, is not altogether reliable, inasmuch as it may exist in a recent attack of pleuritis, and yet on puncture a sero-fibrinous fluid be let out.* Whilst, however, œdema of the chest-wall, when it exists, is a good sign of purulent effusion, as it is not always present, and we may perfectly well have a purulent exudation in the chest without it becoming manifest, it is very desirable to be able to recognize such cases.

Within a brief period some very valuable clinical and experimental researches have been made upon this point; and, in view of their great interest, we shall briefly refer to them here. Hitherto it has been the accepted belief that auscultatory signs which result from different kinds of fluid in the pleural cavity are absolutely similar, or, at all events, that the most acute and cultivated ear is unable to impose characters by which, in the transmission of sounds, their separation may be made. This opinion is altogether opposed to the conclusion arrived at by Prof. Baccelli,† who endeavors to show that the phenomena made known to us by auscultation vary considerably according to the nature and character of the fluid contained in the pleural cavity. He gives, at the end of his memoir on this subject, illustrations which make it evident that the thinner and more homogeneous the fluid is, the more readily vocal vibrations are transmitted.

And, further, that in direct proportion with the fluidity of the liquid, the vibrations are louder. It was also found that sounds were more easily conducted as the ear of the listener approached the base of the liquid; whereas towards its superior surface, it was at times stated that neither bronchial breathing nor loud talking could be heard. Fluids, containing blood, fibrinous flakes, or pus corpuscles, are bad conductors. A wholly purulent fluid is the least favorable to its audition. Other liquids containing granular bodies, fat globules or other bodies *not* fibrinous, transmit vibrations nearly as well as hydropic fluids.

One recorded instance appeared for a brief period, however, to invalidate these results. In a case where the presence of liquid was manifested by the ordinary percussion and auscultatory signs, and vocal and respiratory vibrations were distinguished by the observer, a puncture of the chest was made, and a liquid of purulent appearance was evacuated. Fortunately, a microscopical examination of the fluid was made shortly after the operation was performed, and the pus corpuscles were seen to have undergone fatty

* Archives Générales, March, April, and May, 1876.
† Union Medicale, 1876. London Medical Record, July 15th, 1876.

* Traube, quoted by Fraentzel, Ziemssen's Cyclopædia, Vol. IV., note at foot of page 636.
† Berliner klinische Wochenschrift, May, 1876.

degeneration. Further, the excessive number of fat globules completely disappeared when ether was added.

This case rather adds to the value of Dr. Baccelli's discovery, inasmuch as "aphonic pectoriloquy" may thus bear witness to a molecular change in the fluid, which may influence the prognosis and treatment. The physical law which governs this transmission of sounds in endo-pleural liquids would seem to be quite opposite to what it is in the case of gases. For, in proportion as the liquid is more dense the sound waves diminish in intensity. Moreover, it has been remarked if the liquid be composed of elements of different nature and density, the line of transmission of sounds is not direct, but is considerably refracted. These facts are of manifest importance whenever it is a question of determining the contents of a chest *prior* to thoracentesis. There are occasions, however, when auscultation and percussion fail to give us satisfactory data, and when, in order to have absolute certainty of the existence of liquid, we shall be obliged to employ an exploratory puncture. Now, as I hope to show, due care being exercised that a puncture with a capillary needle is free from risk, it is permissible to inquire here, whether, upon examination of a portion of endo-pleural fluid, there be not other signs, besides the fact of its serous or purulent nature, which will afford us useful knowledge, and if not in diagnosis, at least in prognosis. Practical investigations have already been made on this subject, and the conclusions arrived at are most valuable.

For both researches and deductions we are indebted to Dr. C. Méhu.* This distinguished chemist has rendered manifest the importance of estimating exactly the proportionate amount of dry residuum which is left by the complete evaporation of a given amount of fluid. If this quantity exceeds 50 grammes to 1 kilogramme, and if, shortly after the time of the operation, the liquid becomes a consistent mass, we may affirm with confidence that the pleuritic attack is an acute one. And, further, that the greater the proportion of fibrine, the more probable it is that the patient will speedily and thoroughly recover his usual health.

Practically the gravimeter has been found of the greatest use in determining the quantity of fibrine in different liquids. Whenever this instrument is employed in a liquid of the temperature of 15° Centigrade (58° Fah.) or a density above 1,018, if the liquid rapidly solidifies the case will tend towards a cure at an early date. Whenever the quantity of fibrine either remains of small amount, or there is none present, the prognosis is always grave.

c. Thoracentesis should be performed in moderately large effusions.—This proposition will be admitted by the great majority of practitioners, if the effusion be purulent.

Whenever the effusion is of serous, or sero-fibrinous nature, it is still open to debate. Many there are who, acknowledging in part the benefits derived from thoracentesis, will say puncture is admissible and even advisable under these circumstances, if absorption of liquid be long delayed; for we are aware the lung is then exposed to many contingent accidents. It may be bound down by old adhesions, which will prevent it from expanding again to its former capacity. It may become the seat of caseous pneumonia; or miliary tubercle may develop itself in its structure. Besides, they recognize that the chest-walls may become contracted if old exudations be allowed to form and remain unabsorbed. And then they admit that even with moderately large effusions, if the effusion remains stationary in the chest for several weeks, the duration of the disease must of necessity be greatly prolonged. For one of two conditions will very generally be present: either the pleura costalis and pleura pulmonalis are covered with thick plastic exudations to such an extent that absorption is rendered quite impossible, or else the pressure on the lymphatic orifices by the fluid is such that absorption does not take place rapidly. Frequent examples prove to them also, that in multiple instances, when all other measures have been tried and failed to produce good results, a single puncture of the chest-walls has been very efficacious by letting out a portion of the fluid, and thus allowing the hitherto compressed lymphatics to become permeable; and that, shortly after the operatory procedure, whatever fluid remained in the chest had been completely absorbed. And yet these same practitioners will hesitate and fear to perform thoracentesis in an acute attack of pleurisy at the period when the fluid is first produced in any notable quantity.

First, it is affirmed by them that the liquid will surely re-accumulate if withdrawn from the pleura before the morbid processus has reached its height.

Second, that the fever will be increased by the puncture, the inflammatory condition heightened, the effusion rendered purulent, and the patient injured in almost every particular by too early appeal to an operation.

In order to sustain the first of these objections, it may be argued that if the vessels are in a similar condition to what existed when the effusion was formed, the fluid will inevitably be reproduced. And of course if we desired to empty the chest each time it refilled, we should be obliged to recur to puncture several times during the inflammatory stage.

Now, if we adopt therapeutic means to diminish the intensity, and to shorten the duration of this processus when absorption commences, it indicates that the conditions which gave rise to liquid in the pleura have terminated. Consequently there is little or no probability, unless by imprudence, or the occurrence of some untoward accident, of the reproduction of effusion. To this it may be replied that the above reasoning is faulty, because founded upon an erroneous premise. The re-accumulation of fluid, if drawn off during the formative or ascending period, as it may be termed, is neither necessary nor even probable. First, many cases are already on record where the operation has been performed at this time, and in point of fact the liquid did not re-form. Witness an elaborate and most conclusive article on this subject in the Mouvement Médicale for 1873 (No. 8, p. 58), where we find thirty-five cases of simple pleurisy reported. Of these thirty-five cases, twenty-five had been punctured with the aspirator, and six times only the effusion re-formed. Moreover, when the liquid has re-formed, this re-accumulation has usually been partial, or in less quantity than when it was first discovered; and frequently so small indeed was this re-accumulation that the reality of the increase after operation was not established with certainty. Again, in certain cases, when a second puncture has been made, it has been performed *not* to let out an increase of fluid in the chest, but simply that portion of it which remained behind after the first operation. In all the cases referred to the disease has been invariably shortened.

Finally, we would here lay stress on a fact which is occasionally lost sight of, viz., that the use of the aspirator in no way precludes the administration of medicaments, which are indicated by the condition of the

* Archives Gén. de Médecine, Vols. I. and II., 1872.

patient, previous to thoracentesis. If the patient be robust and of sanguineous temperament, we see no reason why purgatives and diuretics should not be given as useful adjuncts to the operatory procedure. If, on the contrary, our patient is much weakened, and daily losing appetite and flesh, we should, I am convinced, insist most particularly on the exhibition of tonics and moderate quantities of stimulants. Thoracentesis of itself, however, may be considered as being a powerful diuretic, but by a different action from that of *directly* stimulating the kidneys. When a portion of liquid is withdrawn from the pleural cavity of the affected side, the absorbents are by so much relieved from obstruction due to pressure, and can more easily and rapidly exercise their function, and the amount of fluid taken up by them is eliminated finally from the economy by hyper-renal excretion. In one reported case,* the patient passed as much as two gallons of urine during the twenty-four hours immediately succeeding the operation. This result was manifestly due to operation, as no diuretics, properly speaking, were employed. Moreover, notes have been carefully taken in other cases of acute pleuritic effusion when diuretics were given in large doses, during the continuance of the disease, in order to determine whether or not they produced any appreciable effect on the excretion of urine. According to these observations, no increase or change in the flow of urine could be made out, attributable to the diuretics, but the quantity of urine excreted corresponded almost exactly to the quantity of liquid drunk.†

Again, with respect to the augmentation of the febrile state and increase of the inflammation, this objection is not as yet established; and even though rise of temperature after the operation be admitted, is it clear that the operation itself is the weighty factor in its etiology? Dr. Sydney Ringer,‡ in speaking of a case of thoracentesis which had been under his care, makes the following remarks:

"Even during the fever period, the fluid may be withdrawn by the aspirator without any return of the effusion; nay, the fluid left in the pleura may entirely disappear before the fever declines, and, in cases of this kind (viz., of acute disease), *the operation may not* affect the fever."

Dr. Sparks§ also reports a case where the temperature was not in the least degree affected by the puncture; it reached the same point (101.8°) on the evening of the operation, as on the evening before and afterwards. Moreover, it has been noted‖ that in uncomplicated acute pleurisy there exists a pleuritic fever, of which the mean duration is from twenty-eight to thirty days, without reference to the *quantity* of the effusion; and although thoracentesis does not notably diminish the duration of the febrile state, made evident by the thermometer, it diminishes considerably the intensity of it. This record does not correspond with that of Laboulbène, who found that the temperature, taken immediately after the operation had been performed, was more elevated by two or three tenths of a degree, Centigrade scale, than it was before.

These discrepancies are reconciled, fortunately, if we consider the following important fact, viz., that the temperature, as noted by Laboulbène, was taken in the rectum; whereas, in the preceding citation, we have good reason to believe that the temperature was taken from the mercurial level, when the thermometer bulb was in the axilla.*

Moreover Laboulbène† himself remarks that the axillary temperature is generally lower after than before thoracentesis. This fact may be attributed to uncovering the patient during the time the operatory procedure lasts, whilst the elevation of rectal temperature is no doubt sufficiently explained by the re-establishment of molecular action in the compressed parts of the lung. The *surface* temperature does not remain low, and the day following thoracentesis it is again equal to what is was prior to the operation. This circumstance seems to justify the interpretation of it which has been assigned. I would here call attention to the temperature of the affected side.

Some authors have maintained that it is more elevated than on the sound side; according to others, this belief is incorrect.‡

In favor of the former statement, Jobé Duval§ has not only found the temperature of the affected side before thoracentesis always more elevated than the healthy one, but has also observed that the difference is augmented after the operation. He attributes this result to thoracentesis, and hence argues, in cases of pleuritis with effusion and when fever is present, it is preferable to abstain from puncture of the chest-walls. In my opinion, this conclusion is not fully established: First, because Jobé Duval does not show whether the "augmented difference" of the temperature is due to increase on the affected side or diminution on the healthy one after the operation. Moreover, whilst Laboulbène has noticed an increased rectal temperature after the operation, he does not speak of the *surface* temperature, at this time, of the affected side. Now, as there is a general increase of temperature throughout the body after thoracentesis, owing to "the re-establishment of molecular action in the compressed parts of the lung," so there may be, and is probably, greater increase of temperature on the affected side, as the one where the unembarrassed lung is better able to fulfil its functions, and the interchange of chemical elements which takes place in its alveoli is permitted to do so untrammelled by a great load from external pressure. Analogy, with other morbid conditions, will seemingly justify my explanation. In erysipelas we have a general elevation of temperature, and a still more increased local one over the affected regions of skin. In paralysis of certain muscles, or an entire limb by compression of the animating nerves, we have, on the contrary, local reduction of temperature. Take away the pressure, and local temperature rises.

Let us apply this knowledge to our cases of acute pleurisy. As in erysipelas, we have an acute febrile disease, but with a temperature elevated even more locally than generally. Take away the pressure of the effusion, which makes the *difference* between the local and general temperature somewhat less than it would be without it, and the local temperature on the surface of the diseased side rises. And it is evidently no more essential to the truth of this explanation that the skin over the thorax be inflamed, than it is for the skin over a deep-seated abscess to be heated otherwise than by the inflammatory processes going on in the soft tissues underneath. Whatever may be thought of these theories, one fact remains acquired and incontestible, namely, that thoracentesis prac-

* Am. Jour. Med. Sc., Oct., 1872, p. 487.
† Med. Times and Gazette, Sept., 1875, p. 335.
‡ Practitioner. Vol. XI., 1873, p. 409.
§ Med. Times and Gazette, Sept. 18, 1875.
‖ Revue des Sc. Méd., Vol. II., p. 153.

* This is fair presumption, as it is the more usual spot for recording temperature.
† Comptes Rendus de l'Acad. des Sc., Vol. LXXV., 1872.
‡ Ziemsseu's Cyclopædia, Vol. IV., p. 625.
§ Étude sur la pleurisie et la thermométrie pleurale, Thèse, Paris, 1875.

tised during the febrile period of pleurisy has no injurious effect upon the ulterior march of the effusion. It would therefore seem, without having regard to the slight variations of temperature after the operations, that there is every advantage to be gained by not deferring it until the fever has diminished or disappeared. The liquid accumulated in the pleura, according to Dieulafoy, can only have a bad influence; it plays the rôle of a foreign body; it interferes with the function of the lung, and narrows the field of hematosis. We have, therefore, good reasons for ridding the patient of it.* Again, if the increase of temperature were due to the operation, the pleura costalis ought to give some local evidence of increased inflammatory change due to the puncture. Now, positive proof is afforded by post-mortem examinations, made shortly after the use of the aspirator, in which "the place where the chest had been punctured was difficult to discover, and was not surrounded by any areola of inflammation." This objection, moreover, that thoracentesis is a fresh cause of inflammation of the pleura, is of somewhat ancient date, and has not lacked complete refutation. By reference to numerous clinical histories of this operation, to experiments made on animals, and to recorded wounds of the chest in man, Trousseau has shown the innocuousness of a puncture of the chest-walls with a pointed instrument.

No matter how many punctures may be made as an experiment, on sacrificing the subject, "nothing further has ever been found than a little blood at the place of the wounds, and traces of slight inflammation."†

Moreover, in wounds of the chest in man with a pointed or cutting instrument, their gravity depends altogether upon the complications which accompany them, and except for these complications wounds of the chest are exempt from dangers. From an impartial survey, therefore, of the two principal objections urged latterly against thoracentesis, during the acute febrile stage of the disease, I derive the conviction that they are without importance, inasmuch as they are based upon incorrect premises.

With respect to the fear of transforming a serous or sero-fibrinous effusion into a purulent one by the use of the aspirator, this objection is without weight. Dieulafoy has never seen it once among several hundred cases in which he has operated by puncture, and regards it to be a coincidence rather than the consequence of the operation. No doubt, if air were permitted to enter the pleural cavity, purulence might readily follow, as it did occasionally with the ancient manner of puncture by an ordinary trocar, after the method of Reybard. And, even under these circumstances, purulence of fluid after the operation was much less frequent than is usually believed.

In twenty-eight cases tabulated by Dr. G. H. Evans,‡ the operation was performed more than once; in twenty-four of these the fluid drawn off was serum each time; in the remaining four cases it was purulent in one or more of the subsequent tappings. Besides, we should never lose sight of the following fact, viz., that a serous pleuritic effusion has of itself, in certain constitutions, a tendency to become purulent, and without any complication, occasioned either by intercurrent disease or an operation, will naturally and inevitably take on this change. With children this is especially true. For in them simple, non-secondary pleurisy transforms itself with an extreme rapidity and facility into one of purulent nature.*

Whenever, therefore, in children absorption of effusion is delayed, we shall have to anticipate this probable modification in the nature of the liquid. This is so exact, that it has been said by high authorities a chronic case of simple *serous* pleurisy does not exist among children. In more than thirteen thousand patients of all kinds, which have been cared for during eleven years, in the wards of M. Barthez, of Paris, not a single instance of it was noted. And Barthez himself affirms that he has never, in his very extensive experience with children, seen a case of this nature.† In basing our judgment on one of the facts which may be encountered as a tolerably frequent sequence of thoracentesis, we should carefully consider attendant conditions, so as not to have ourselves biased against the operation, and to attribute to it what in reality is a mere coincidence, and without relation of an effect to a cause.

* Traité de l'Aspiration, Paris, 1873, p. 316.
† Clinique Méd. de l'Hôtel-Dieu, Vol. I., p. 691.
‡ Saint Thomas's Hosp. Reports, London, 1871.

PHOSPHORUS ASSIMILATION.

THE ELEMENT AND ITS COMPOUNDS, CONSIDERED AS TO AVAILABILITY.

By R. W. GARDNER.

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When phosphorus is administered in a free state, its irritant action forms the greatest objection to its use, and limits the quantity which may be given with safety; it is also necessary to give it upon a full stomach, as a precautionary measure, as otherwise it is found to attack mucous surfaces, and produce irritation; the extent of such action depending upon the quantity administered, or the length of time the remedy has been continued. The largest dose usually given is about one-twentieth of a grain, though one-twelfth has been administered, but not until the tolerating power of the patient had been carefully tested. Given in doses of from one-hundredth to one-thirtieth grain, it often produces dyspeptic symptoms, and the remedy has to be discontinued.

Let us consider why this occurs. Phosphorus has such a powerful affinity for oxygen, that it must be kept under water, for when exposed to atmospheric air its union with oxygen is so violent that it inflames spontaneously. This explains its corrosive action in the stomach, modified, no doubt, by its surroundings, but nevertheless capable of producing the most serious results upon the delicate mucous surfaces which are directly exposed to its influence.

Phosphorus cannot be absorbed in its pure state; a certain degree of oxidation must have taken place before it reaches a condition adapted for assimilation.

What this degree is, has not been definitely determined; it is certainly not more than one atom of oxygen, and possibly less.

When it has thus become partially oxidized, however, it has lost its corrosive action, and is then, and not until then, in a condition to fulfil its valuable agency in contributing to nerve-power and vital force. The remedial action of phosphorus is doubtless exerted from the time it has become sufficiently oxidized for absorption, and during the whole of its subsequent oxidation, until it has finally reached its ultimate oxidized state, the phosphate.

* Voyet, De quelques Observations de Thoracentèse chez les Enfants, Thèse, Paris, 1870, p. 16.
† Dr. Verliac, Thèse de Paris, 1865.

My reasons for forming this conclusion are, that the eliminations of phosphorus from the body are *always in the condition of phosphate*, and also that the phosphate is so firm in its chemical behavior as to lead naturally to the belief that for this purpose it is unavailable, or to use a vulgarism, it has "burned out," and having passed its period of usefulness, is eliminated.

Phosphorus exists in the vegetable world in the condition of phosphate only; in animal tissue and in fish, etc., in a partially oxidized state, constantly undergoing the oxidizing process, and finally being thrown off as effete matter.

Does not this at least partly explain the superior vitality and nervous power of those who partake largely of animal food?

It is also rarely the case that animal organisms appropriate elementary substances directly. If we examine the matter, we will find that all articles of food contain these elements in a condition of chemical combination, and by a reciprocal action nature discards useless or exhausted substances for such as she requires, each immediately forming new compounds, the one destined for elimination, the other for assimilation.

These views naturally lead to the conclusion that phosphorus should preferably be administered in its lowest oxidized state rather than in the elementary condition, and never, where its assimilation is desired, in the condition of phosphate.

The next question is, how to get at it? Phosphorus, uncombined, passes directly to its highest condition of oxidation, unless retarded by chemical union with a base; this leads us to a second conclusion, viz:

That phosphorus in its most desirable form cannot be obtained except by such a chemical combination as will stay the oxidation at this point, and render it available for therapeutic action. In the search for such a compound, there seems none so well suited to the purpose as the several hypophosphites. They embrace quite a range of salts. Lime, soda, iron, potassa, manganese, quinia, etc., each capable of playing an important part in a subordinate capacity, while the phosphorus element becomes the most important. The phosphide of zinc has been suggested and used to some extent, but this does not seem a sufficiently definite compound, producing irritant action and unpleasant results. The hypophosphites, however, while entirely non-irritant, and held by such a feeble affinity as to be readily decomposed in the stomach, not only contain oxygen in its least combining proportion, but represent a larger proportion of phosphorus, relatively, than any of its other compounds. It is found, however, that unfortunately their therapeutic value is much lessened by the impurities always found in the commercial salts, and the ordinary preparations of them. It is very desirable that they be administered in a perfectly pure and neutral state, and unless they have been given in this condition, their medicinal value has not been properly tested. This is proven by the superior results attained by the use of such salts at the European hospitals.

The salts should be converted into solutions, the impurities removed by proper chemical means, and such solutions preserved against putrefaction and atmospheric influence by conversion into syrups. Sugar is the best preservative agent, as it does not cause decomposition, and excludes atmospheric air. Prepared in this manner, the salts have been found much more prompt and assimilable. They should be almost wholly devoid of medicinal taste, except in the case of iron, and in this, the ferruginous taste is only mildly perceptible. The syrups of lime, of soda, and of potassa should be entirely free from the alkaline taste common to these preparations, and should never let fall a precipitate, which is a sign of the presence of impurity.

Progress of Medical Science.

Ectropion treated by Transplantation of a large Flap without a Pedicle.—Dr. Wadsworth, of Boston, reports the following case on which he operated successfully by the above method, recently proposed and carried out by Mr. Wolfe, of Glasgow. The case seems to be one that merits careful attention, as it points in the direction of decided improvements in our means of dealing with deformities, especially such as often result from cicatricial contraction following injuries. A healthy girl of sixteen was extensively burned about the face in infancy. As a result of the contractions of the cicatricial tissue, the left upper lid was shortened, the eyebrow and lower lid much pulled downwards, and the conjunctiva greatly everted. On attempting to close the lids there was a broad space between the puncta-lachrymalia. The operation consisted in making an incision through the skin of the lower lid, about one and a half lines below the lashes and parallel to them, the wound extending from just below the punctum to a point half an inch beyond the outer canthus. The tissues were then dissected until the edges of the lower lid could be brought into apposition with the edges of the upper lid, when the two lids were sewed together. The raw surface thus left measured $1\frac{5}{8}$ inches in the horizontal direction and $\frac{5}{8}$ of an inch in the vertical. A piece of skin from the inner side of the forearm $2\frac{1}{2} \times 1\frac{1}{4}$ inches in dimensions was then dissected up, stripped of its subcutaneous connective tissue, and implanted in the wound, where it was detained by two delicate sutures. Gold-beater's skin was then laid over the lids and covered by thick layers of cotton wool secured by a flannel bandage. The sound eye was also bandaged to secure immobility. The dressing was not disturbed for forty-eight hours, when the bandage and cotton wool were removed. It was then found that the outer two-thirds of the graft appeared to have united without swelling, while the inner third was somewhat uneven, for the inner two of the sutures intended to hold the lids together, having cut through the lower lid, had fallen, so that mucus and tears had run out from the conjunctival sac and smeared this portion of the graft and the skin about it. A part of the gold-beater's skin was then cut away and the skin cleansed with a carbolic-acid solution. A little cotton moistened with carbolic-acid lotion was then laid over the inner canthus, and the packing and bandage renewed. On the next day the graft was in good condition throughout. The gold-beater's skin was removed on the fifth day; on the eighth the bandage was omitted and the sutures holding the lids together were removed. The graft was then firmly united. About the fifteenth day the horny layer of the epidermis was thrown off from the whole surface. Dr. W. observes that the shrinkage in these cases is decidedly greater than when a pedicle is left. Its dimensions, after four months, were $1\frac{3}{8} \times \frac{3}{8}$ inches as compared with $2\frac{1}{2} \times 1\frac{1}{4}$ inches at the time of the operation. In this case the size of the graft was greater than in

either of Wolfe's cases, but it is thought that if a larger surface is to be covered it will probably be better to employ two or more grafts, because the difficulty in making them lie flat increases with the size.—*Boston Medical and Surgical Journal*, December 28, 1876.

Excision of the Elbow, with its Final Results.—Dr. Beach, of Boston, has collected and reviewed a series of twenty-one cases of this operation, all of which occurred in the hospital service of Dr. R. M. Hodges, within the last ten years. The results, which he gives, are attributed to the observance of certain rules in carrying out the operation. In the first place, the single straight incision is made downwardly over the olecranon, so that the tissues are not cut across, allowing also "the connection of the triceps extensor tendon, with the investing aponeurosis of the arm and forearm to be preserved almost intact. An attachment for the muscle is thus retained which diminishes to a certain extent the loss of power following its unavoidable separation from the olecranon." In the second place he lays stress upon the fact that it is essential to regard the attachment of the brachialis anticus, for though, he observes, this muscle is commonly stated to be inserted into the coronoid process of the ulna, excision on the dead subject shows that the attachment is into the shaft of the ulna also. This being the case, it is usually possible to slip in the saw, always from the inner side of the arm, between the base of the process and the shaft, thus leaving the muscle firm in its connection; the attachment of the biceps should also be respected. for Dr. H. believes that it is rarely necessary to remove any part of the radius below the bicipital tuberosity. In deciding as to the sacrifice of bone, it should be at the expense of the humerus. Regret may sometimes be felt at not having excised enough, but seldom at having removed too much.

Dr. Bigelow's plan was suggested since these operations were done. The incision is similar, but in removing the articular surface he preserves the internal and external condyles of the humerus, thus affording better chances for good pronation, supination, flexion and extension by saving the point of attachment of those muscles that originate from the condyles. In fourteen of Dr. Hodges' cases the excision was for injury; of these five died. In four the operation was for disease; all recovered and had useful arms. Three cases were of deformity; two recovered and had useful arms, and one died. The author, in conclusion, states that "in twenty-one cases where amputation must otherwise have been performed, this report exhibits fifteen arms preserved, several of them being useful to a remarkable degree, and all of them, except one, retaining motion of the elbow, forearm, hand, and fingers." During the forty years that the operation has been practised in the United States, Dr. H. doubts whether its full range of usefulness has been reached.—*Boston Med. and Surg. Journal*, January 4, 1877.

The Alimentation of Infants.—M. Magne, having been struck by certain results obtained in the alimentation of animals, recently read a long memoir before the *Académie de Médecine*, in which he developed the idea that the same principles should be applicable to man, and that consequently, instead of rejecting all other aliments than milk during the first months of infancy, we should habitually have recourse to them, and recommend them. This doctrine, borrowed from veterinary surgery, met with decided opposition from all sides. M. Bouley called attention to the great differences that exist between the herbivora and the carnivora, the former being very precocious and able at an early period to live an independent life, while the latter remain for a long time incapable of seeing and walking, and unable to procure any other nourishment than the mother's milk. M. Depaul argued that premature alimentation could only result in augmenting the mortality of infants, and would greatly increase the number of cases of rachitis. M. Devilliers said that observation has proved that the mortality is least in those countries in which the practice of suckling the infants is most common, and is prolonged during the first periods of dentition. This is not a reason for rejecting the employment of solid food at all times, but it should only be resorted to towards the end of the first year, and after the capacity of the infant to sustain the new mode of alimentation had been carefully ascertained.

M. Guérin took substantially the same view as the previous speakers, but added that he had often observed that infants who had been fed on the mother's milk alone for twelve or fifteen months became very lymphatic. They suffered in consequence of a too long continuance of the same *régime*. While rejecting, however, premature alimentation, he insisted strongly on the value and safety, in appropriate cases, of artificial nourishment with the milk of animals. One woman in Besançon brought up successfully on the bottle ninety-six children. M. Guérin recommends good cow's milk, to which a little sugar and a variable quantity of water should be added.

M. Devergie referred to the difficulty occasionally experienced of finding a nurse whose milk agrees with the child. He has found that little reliance can be placed on the signs that are usually said to indicate the good or bad qualities of a nurse, and thinks that microscopic examination affords the most reliable information as to the quality of the milk. He has examined in this way the milk of 172 nurses, and distinguishes three varieties of milk, viz.: *strong milk*, in which the globules are large and well defined; *medium milk*, which contains a mixture of large, medium-sized and small globules; *weak milk*, which contains only very small globules. The number of the globules is also an indication of the poverty or richness of the milk. Examinations of the milk of different cows give similar results. When one breast is not used, the milk it contains becomes very thick and creamy, consisting of a mass of globules without appreciable serum, under the microscope. M. Devergie derives from these facts the following rules of practice: 1. When the mother has never nursed her child, choose a nurse with *medium milk*, which is most apt to agree with the child. 2. When the mother has nourished the child for some time examine her milk microscopically, and choose a nurse whose milk presents analogous characters. 3. When the milk of one nurse disagrees with a child take another nurse whose milk presents the opposite microscopical characters.—*Journal de Méd. et de Chir.*, November, 1876. *Gazette Médicale de Paris*, November 11, 1876.

Extirpation of the Kidney.—Dr. Dabney has collected twelve cases in which this operation has been performed, the operators being Peaslee, Simon (2 cases), Schitelig, Von Bruns, Gilmore, Meadows, Durham, Peters, Brandt, Stoddard, Campbell. The patients recovered in four of the cases.—*Amer. Med. Weekly*, December 23, 1876.

Phosphate of Lime in the Treatment of Fractures and Wounds.—Clinical observation has already confirmed the value of this drug, but a special phenomenon, which in a certain number of cases gives evi-

dence of the activity of the reparative process going on in the injured bones, has apparently, as yet, escaped observation. Several patients in the wards of M. Dolbeau, in Beaujon, to whom this drug was administered in doses of thirty grains three times a day, complained of a sensation of tingling in the affected limb, which ceased when the drug was withheld and reappeared when its use was resumed. The following cases exemplify this fact:

1. Alexandrine S—— entered the hospital on July 13, 1867, with a comminuted fracture of the left humerus, complicated with a small external wound. Several methods of treatment were tried, but on the 8th of May, 1868, the fracture was still ununited. A spoonful of the syrup of the lactophosphate of lime, representing fifteen grains of the salt, was then given three times a day with the meals; at the end of eight days the dose was doubled. During the first week the patient's appetite became excessive, and it continued so for three weeks, after which it returned to its normal condition. After the fifth day of the treatment the patient felt stronger, and she complained of a sensation of tingling, and of continuous pricking in the legs and arms, especially at the seat of fracture. The phosphate of lime was continued in the same large doses, and caused no disturbances of the general health. The formication gradually decreased in severity after the first week. The limb was placed in a silica splint, and when this was removed, on July 8th, the consolidation was almost complete.

2. Charles D—— received a compound fracture of both bones of the right leg on May 1st. On June 1st the wound had healed, but the callus was still soft. On June 3d he was ordered two spoonfuls of the syrup of the lacto-phosphate of lime three times a day. After twenty-four hours his appetite began to increase, and it became excessive about the eighth day. At the same time he complained of a marked sensation in the affected leg, which he compared to that produced by electricity and by numerous prickings. On June 20th the callus was resistant, although mobility still existed.

3. X——, fracture of humerus on June 12th. Consolidation well advanced on July 9th. On the 17th a spoonful of the syrup was ordered three times a day; these doses were doubled on the 19th. On the 22d the appetite was excessive, and the patient felt in the fractured limb some formication, which gradually became more marked. The drug was withheld for four days, and on the fourth day all the phenomena had disappeared. It was then resumed in the same doses, and after three days the patient complained anew of formication.—*La Tribune Médicale*, December 3, 1876.

Notes of a Case of Phlegmonous Glossitis.—In view of the comparative rarity of idiopathic inflammations of the tongue, the following case reported by D. Fienzal may be of interest to our readers, as it illustrates both the excessive gravity of glossitis and the incontestable value of surgical interference:

M. P——, law student, aged 28 years, was seized on a Sunday, without appreciable cause, with pain at the base of the tongue, accompanied by tension and difficulty of moving the organ; the teeth were good, and there was no ulceration of the tongue; an initial chill, followed by high fever, nausea, and extreme pain manifested themselves during the first day; on Monday the mouth was opened with some difficulty; and on Thursday the tongue filled the entire buccal cavity from the floor to the roof, and extended beyond the dental arches, which painfully compressed its tissue. The difficulty of swallowing was extreme, the saliva was constantly dribbling out, and the interference with respiration demanded prompt intervention. A bistoury was with difficulty introduced into the mouth, with its flat surface parallel to the tongue, turned and plunged into this organ as far back as possible, making an incision 1½ inch long, and at least ½ inch deep. A similar incision was made on the other side of the tongue. The hemorrhage was abundant, and relieved the patient a good deal. On the next day an obscure sensation of fluctuation was perceived on passing the finger over the back of the tongue, and on the same evening the symptoms again became severe. On Sunday, the tongue hung out of the mouth; it was seized in a handkerchief and a bistoury plunged deeply into its substance in a sloping direction. The hemorrhage was free but no pus came. The bistoury was, however, introduced a fourth time nearer the middle of the organ, and a stream of phlegmonous pus, mixed with blackish blood issued forth. The patient felt relieved at once, and in a few moments was able to swallow, to breathe easily and to speak. The tongue soon regained its normal volume.

Dr. Fienzal had great difficulty in discovering an adequate cause to account for the rapid development of such dangerous symptoms. The usual causes of glossitis mentioned in the text-books seemed to him utterly insufficient. He finally discovered that on the eve of the day on which he was taken ill, the patient had indulged for a long time in certain voluptuous practices in which the organ of taste played a disgusting and unnatural role.—*Gazette Médicale de Paris*, December 2, 1876.

Temporary Glycosuria During Lactation.—The following are the conclusions of a paper on this subject, communicated to the *Société de Biologie*, by M. A. Gubler:

1. Glycosuria is not a normal phenomenon of the state of lactation.

2. It is met with after the suspension or premature suppression of nursing, provided the nurse be in good health, or at least be not suffering from any serious disturbance of the important functions of life.

3. In other words, glycosuria only appears as a consequence of a disturbance of the equilibrium between production and consumption, which causes a lactosæmia, comparable to the superalbuminosis of the blood, which leads to dyscrasic albuminuria.

A transitory albuminuria does not accompany the glycosuria under these circumstances, partly because albumen, being a colloid substance, passes through an animal membrane much less readily than sugar, which is a crystalloid substance; partly because albuminuria presupposes at least a renal hyperæmia, while glycosuria is produced without any anatomical modification of the gland; finally because the quantity of albuminoid matters taken back into the blood in the resorption of the milk, is small compared with the amount of sugar of milk.—*Gazette Médicale de Paris*, November 25, 1876.

An Expensive Medicine.—A homœopathic pharmacy advertises "Lachesis, 3d Centesimal Trituration, one dollar ($1.00) per ounce." As their other triturations are worth but twenty-five cents an ounce, we presume the difference depends upon the value of the medical ingredient. As it is in the proportion of one part in a million, an ounce of the pure drug would cost seven hundred and fifty thousand dollars.

THE MEDICAL RECORD:

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FRAUDS IN LIFE INSURANCE.

The recent developments of fraud in life insurance have opened the eyes of the public concerning the manner in which the affairs of some of the companies are managed. It can hardly be considered a comforting assurance to policy-holders that the practice of making false entries, quoting and swearing to fictitious values, are quite common on the part of directors of these enterprises; and yet such is asserted as a fact by a director of one of the companies whose villainies have been recently unearthed. Indeed, we fear that, as the investigations of the Superintendent of Insurance proceed, there will be more shaking among the dry bones of sepulchred honesty than was at first anticipated. With the strictly business management of such companies we do not at present care to refer, except in the way of stimulating greater caution on behalf of prospective policy-holders in the selection of well-established and well-managed companies. But this is by the bye.

An item in the report of the Deputy Insurance Inspector regarding the excessive mortality of an insolvent company brings up for discussion a subject which is more especially interesting to the profession. As a general question of principle, which may affect the prosperity of any company, its significance cannot be and must not be ignored. Although the text for our remarks may be taken from the report before us, we trust that we may be understood as speaking with impartiality, and with no desire of reflecting upon the capabilities of the medical examiners connected with this particular company. We wish merely to say a few plain words in a general way upon the great importance of medical examination in life insurance, for which the statements in the report give us such a direct invitation. The Deputy Superintendent of Insurance, in estimating some of the reasons for the failure of the company, very pertinently says:

"I find also that the mortality of the company was excessive; and to conceal the fact, large amounts expended for death-losses were carried annually into expenses as 'paid for forfeited policies.'"

In searching for the reason of this excessive mortality we naturally direct our inquiries toward the management of the medical department. No one doubts that to the latter belongs all the responsibility of increased death-rates; but whether or not it is allowed to assume it and govern its actions accordingly, is a matter with which, as a profession, we have a great concern. From what we know of the medical gentlemen connected with the insurance company in question, we are not willing to believe that they have been derelict in their duties as examiners. Thoroughly competent to exercise such functions as belong to that office, we are able to explain the increased death-rate in no other way than by the suspicion that their advice was in many cases ignored, and their recommendations overridden by superior authority. Assuming the latter to be the most plausible explanation for the particular losses sustained, we are brought face to face with the old question concerning the relations of medical examiners to life insurance companies. We have always held that the office of medical director to an insurance company was one of the greatest importance. It is impossible to underrate it even in comparison with that of Actuary, General Agent, or President. As the prosperity of the company must depend upon the safety of the risks, the value of a professional decision regarding them must rank proportionably high. The responsibilities involved in such decisions are as weighty as those which govern the investment of the funds in real estate or in stocks. And yet we find that the position of medical director is, as a rule, a very subordinate one. Generally he is a mere figure-head to quiet the suspicions of policy-holders and give the appearance of honesty of intention on the part of the stockholders. In many instances the medical examination of an applicant for life insurance is so much a matter of form—so much a matter of what is judged by the higher authorities as one of pecuniary policy—that a certificate of actual unsoundness is entirely ignored, and a policy granted accordingly. Under such circumstances the medical officer is made professionally accountable for what he evidently has little or no power to control.

The very fact of his occupying the position of medical director or medical examiner presupposes his fitness for the discharge of his duties, and should give his professional decisions the respectful courtesy of unquestioned authority. But every one knows that the rule which should obtain under the circumstances is exceptional rather than general.

While we must admit that the taking of improper risks may be thus explained when the companies have competent and conscientious examiners, we must not lose sight of the possibility of an equally reason-

able explanation, from the fact that the examinations are often trusted to unqualified persons. In either case the companies are to blame. It is no excuse to say that properly educated men cannot always be obtained for these offices. Too often medical appointments are made more for pecuniary and social considerations than for professional qualifications. So well is this understood, that an appointment is always supposed to imply some close friendship with the president or one of the board of directors. It would be absurd to believe that such a system is not liable to gross abuse.

Again, in reference to possible professional incompetency it is fair to offer the explanation that, with few exceptions, the salaries paid for medical examiners are not sufficient to secure first-class talent and accomplishments. Not many days since the president of a prominent life insurance company, in order to explain why he should receive a large salary, gave as the reason the great responsibilities of his office. If the latter excuse could apply to the medical directors and examiners of the different life insurance companies throughout the land, there would be no complaint concerning the amount of the salaries paid for valuable professional services.

It is not our purpose to treat of the general question of relations of medical examiners to life insurance companies in all its details, but simply to place the responsibility of an excessively high mortality in any given company where it rightly belongs. The whole matter sums itself in this: if the medical directors and examiners are competent and conscientious men, their decisions regarding the character of a risk should be authoritative and final. If then any mistake is made, the burden of an explanation should rest with the one who is legitimately vested with the responsibility. If these explanations are not satisfactory, a change is easily made. If the salary is not sufficient to tempt the proper men to take the place, it should be made so.

Considering the ease with which these reforms can be made by any insurance company, there is as little excuse for a high death-rate as for the peculiar methods of concealing the facts of other frauds by false balance-sheets, by the transfer of fictitious stocks, or the inflation of the value of real estate.

MUNICIPAL LUNATIC ASYLUMS.

Occasionally the details of some reported outrage come to us from some one of the municipal asylums, and for weeks the daily prints indulge in violent attacks upon asylum management. Such onslaughts, we are well aware, are rarely characterized by any spirit of fairness, but, on the contrary, are too unjust and abusive to have much weight with the intelligent portion of the community. But is there not sometimes a little flame where there is so much smoke? Even though the complaints of the patients are exaggerated and based generally upon fancied wrongs, are there not sometimes well-founded reasons for investigation and reform? We think so. Strait-jacket muffs and rough attendants, provoke these stories of personal suffering, and are bad enough in themselves; but beyond these, there are greater evils which flourish particularly in the asylums of large cities, and very little has been said about them. We allude to overcrowding, insufficient and poor food, and incompetent medical attendance.

Dr. Bucknill, who wrote of our city asylums, spoke of them as being "under the vulgar rule of a municipality moved only by motives of party politics and unintelligent economy." Now while this statement is true in some respects, it is unfair in others. There are some medical superintendents of asylums who have so little ambition to improve the institutions committed to their care, that their asylums become little more than alms-houses, where insane paupers are huddled together, and where intelligent medical treatment and advantages for scientific research are neglected. This is the penalty of placing incompetent individuals at the head of asylums, instead of paying salaries that will command medical men of brains and ability.

This condition of affairs does not exist, however, in all the municipal institutions; some men take so much interest in their duties, that they have brought their institutions to a high state of perfection. This is the case with Dr. MacDonald's asylum on Ward's Island, which was especially praised by Bucknill.

Too much attention is paid to the whiteness of the floors, and too little to the physical treatment of the patients. The insane are left to the care of ignorant attendants, or the whole medical direction devolves upon two or three young physicians, as is the case in one asylum in New York where there are thirteen hundred patients. The food is simply atrocious, meat which is two-thirds bone and gristle, black bread, and questionable potatoes. That the medical superintendent is often aware of this state of affairs there is no room for doubt.

HOMŒOPATHIC MEMBERS OF STATE EXAMINING BOARDS.

The Medical Society of the County of Travis, Texas, is much exercised over the prospective appointment of an homœopath as a member of one of the Medical Examining Boards of the State, and have published a long and earnest protest against it. It appears that one of the District Judges, who has the power to make such appointments, has signified his intention of having at least one representative homœopath as a member of the Board. As regards his right so to do, there can hardly be a question, since the law regulating the practice of medicine in that State merely requires an examination of candidates "in the elemen-

ury branches of medicine, anatomy, physiology, chemistry, surgery, and obstetrics, which are understood like by all schools, and does not require examination n those branches involving difference of opinion." The claim of the Medical Society is, in substance, that competent Examining Board cannot be secured with n *irregular* upon it. This is, however, so clearly, in he eyes of the law at least, a matter of opinion that t cannot be accepted with the force of a fact. If the rregular is acknowledged to be competent to examine n the prescribed branches, not the most liberal interpretation of the purposes of the law can prevent his appointment to any office in which the mere exercise of such functions is required. We sympathize with he Society in their laudable efforts to contend against quackery, but in the present instance we can see no help for them. It is, after all, another illustration of he inutility of legislation in matters purely medical.

UNHEALTHY HOSPITALS.

The death of four female inmates of the Epileptic Hospital on Blackwell's Island, supposed to be due o malarial influences, resulted in a sanitary survey of the building. Dr. McLane Hamilton, one of the visiting physicians to the institution, in recommending the immediate removal of the hospital, made the significant statement that a large number of the patients were more or less affected with malarial poisoning. On inquiry regarding the cause of this state of things, it was discovered that the outbreak of the epidemic was due to the condition of the ground on which the hospital stands. That there is good reason for this assertion, appears from the fact that this particular portion of the island was formerly marshy ground, which had been filled in from garbage and sweepings from the city. The removal of the patients has been repeatedly urged during the past few years; and now that such a recommendation is associated with some deaths, which have caused a public sensation, it should be acted upon.

If the present experiences of the Board of Commissioners shall be fraught with any good in the prevention of future evils in hospital construction, it will be well. With the system, however, of entrusting contracts to persons ignorant of the first principles of sanitary requirements, of allowing the construction of large public buildings upon pestilential soil, there does not seem to be much hope of reform. Indeed, how can we expect it to be otherwise when one of the largest hospitals of our city, governed by one of the most intelligent and influential boards in the country, has been built upon the edge of what was once a swamp, and in defiance of the best-established principles of hospital construction? In regard to the Epileptic Hospital, the only proper means of preventing the spread of an epidemic should be taken at once; but it is easy to see that, before this can be done, the Commissioners will be called upon to prove the relative value of the factors, prevention and cure.

PREVENTION OF SCARLET FEVER.

The circular recently issued by the Boston Board of Health, and published in another column, may be considered in many respects as a model one. As such we commend it to the attention of the health authorities of this and other cities. Considering the contagiousness of this disease, and its great fatality, there is no middle ground to be taken regarding measures to prevent its spread. Not long since we referred to the danger of disseminating the poison by funerals, and the steps which had been taken to prevent such an occurrence in our own city; but this is only one of the many means to be adapted to the end. The promiscuous intercourse of members of a family, in which scarlet-fever exists, with outsiders, either by direct contact or through the media of clothing and the like, is one of the most prolific causes of spreading the disease. It may not be irrelevant to the discussion of such possibilities, to say, in this connection, that some physicians are not as careful as they might be while in attendance upon such cases. Numerous melancholy examples of such neglect are on record, of the disease being carried from one family to another. When we take into account the fact that it is only with the utmost care, on the part of physicians and attendants, that the spread of this dreadful disease can be arrested, we cannot laud too highly every new effort made in the proper direction. The duty of the physician in attendance upon scarlet-fever patients is so obvious, in regard to the enforcement of the strictest quarantine, that it is unnecessary to urge his attention to every possible detail. The protection of the school children in Boston, by the recent orders of the Board, is calculated to meet a requirement which has been felt in every city where large schools abound. We are not aware that any similar provision has been made in our own city; at least the lack of power, or the want of disposition to enforce it, is quite apparent in the number of cases which owe their origin to direct association in the school-room. Pursuing this part of the subject further may tempt us to reiterate some of the arguments in favor of medical inspection of schools, and cause us to stray from the direct purpose of these remarks.

OUR WATER SUPPLY.

The question of water supply for our city is still under discussion by the Board of Aldermen. The opinion is entertained, and we think with good reason, that the present water-shed of the Croton River, and the new aequeduct in course of construction, are sufficient to supply the wants of the city for a long time to come. While it is acknowledged by the Water Commissioners that there is a great waste of water in different parts

of the city, and notably in the tenement-house districts, the use of water meters is not advocated. The objection to the measure, more especially urged by His Honor the Mayor, that for strictly sanitary reasons there should be no restriction of water privileges, reasonable as it may appear, does not meet the question at issue. While it is quite necessary that water should be freely used, it is equally necessary to prevent actual waste. How these apparently conflicting conditions can be best reconciled to the interests of the people at large, is still somewhat of a problem.

Thus far, however, the system of preventing waste of water which is adopted by the authorities of Liverpool gives the best promise of satisfaction. In that city an instrument is used to indicate the velocity of the flow of water through the pipes, and when this velocity is unduly increased a waste is at once detected and traced to a particular dwelling.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Dec. 27, 1876.

Dr. Charles K. Briddon, President, in the Chair.

Dr. Heitzmann reported the case of false membrane in the joint, presented by Dr. Sayre, to be real cartilage.

POPLITEAL ANEURISM—INTERESTING QUESTIONS IN DIAGNOSIS.

Dr. Mason presented a specimen of popliteal aneurism, taken from an inmate of the Colored Home, a man aged 64 years, who came under observation in May last. The patient had syphilis eight years before, and afterwards suffered from its secondary manifestations. In October, 1875, while jumping over a ditch he fell, and at the same time something gave way in the back of the left knee-joint. During the following February the swelling became very painful, and was accompanied with a beating sensation of the posterior portion of the knee. When he entered the hospital no pulsations could be felt either in the anterior or posterior tibial arteries, and the limb was much swollen and œdematous. Dr. Mason ligated the femoral on the 15th of May last, in Scarpa's space. The patient did well until the 4th of June, when blebs appeared upon the dorsum of the foot in the vicinity of the toes, and gangrene followed. The line of demarcation formed in the course of ten days, and on the 22d of June, Dr. Lyon, the house-surgeon, removed the limb through the middle of the femur. The patient did well for eight days, when he sank from exhaustion, induced by the extreme heat prevailing at the time. The aneurism sprang from the anterior surface of the artery, and the tumor was nearly consolidated. The wound of the artery healed up nicely.

Dr. Mason presented a second specimen which had been removed from a young German, aged 24 years, who had entered Roosevelt Hospital, March 18, 1876. Five months before, he began to suffer with pain in the posterior portion of the left knee, particularly after a hard day's work. He could give no history of the injury, but stated that for some time past having been engaged in putting down carpets, he thought that he might have "strained the joint." He was seen outside by several physicians, and the disease by some was regarded as rheumatism, by others as incipient hip disease. On admission to the hospital while examining the joint, Dr. Mason observed an ovoid tumor situated in the left popliteal space, measuring 2½ inches vertically, and two inches transversely. It pulsated strongly, the pulsations being eccentric and plainly seen by casual inspection. There was beside a loud and distinct bruit. On compressing the femoral artery in the groin, the pulsation instantly ceased, and the tumor diminished in size. The pulsations of the anterior and posterior tibial arteries were very much diminished. The knee-affected limb was warmer than the opposite one, while the leg below was cooler. For various reasons the case was examined repeatedly, and the conviction was more and more certain in regard to the existence of a popliteal aneurism. All the members of the visiting staff, as well as many others who saw the case, the majority of them expert auscultators, agreed in that opinion; in fact, there did not appear to be a reasonable chance for an error in diagnosis.

The treatment by flexion was commenced on March 17th. The immediate result was the diminution of pulsation in the tumor and the bruit. This failing, Esmarch's bandage was applied, but this in turn became so painful that it had to be removed. Next pressure was resorted to by relays of medical students two or three hours at a time, and then pressure by means of an artery compressor.

Although the tumor diminished in size and became harder, it was quite evident that a cure was not to be expected by these means. These efforts were kept up for nine days, at the end of which time the femoral artery was ligated in Scarpa's space. As soon as the vessel was ligated all pulsation ceased, and the tumor subsided considerably.

After the lapse of six days, the patient complained of violent pain in the joint, which latter became very much swollen and red. It was then supposed that suppuration was going on in the aneurismal sac.

On May 1, Dr. Weir came on duty. At that time fluctuation was distinct over one portion of the tumor. The needle of the aspirator was introduced and blood withdrawn. A poultice was applied, which was the means of giving some relief.

May 23d, a bistoury was introduced into one of these fluctuating points, and gave exit to a considerable quantity of pus and blood. For the first time there was enlargement of one of the ganglia of the groin, and this, with the extension of the growth upon anterior portion of the thigh, aroused the suspicion of the existence of a tumor other than aneurismal. Some days after this, near the site where the bistoury had been introduced, the tumor ruptured and gave exit to a large quantity of blood and pus. The pain in the limb continued; the patient began to have a cough and was evidently running down. Dr. Weir amputated the thigh on June 22d, but unfortunately the patient died of phthisis Aug. 5th.

On examining the tumor after the removal of the limb, a portion was found filled with a material which resembled laminated fibrine. Besides this there was new growth on the anterior portion of the femur which invaded the cancellous structure, occasioning an oblique fracture of the lower portion of the femur. The popliteal artery was posterior to the tumor, and independent of it.

Dr. Mason, in conclusion, remarked that although he error in diagnosis was a grave one, he did not see ow he could guard against its repetition under milar circumstances.

Dr. Flint asked if there was a double systolic mur-mur over the tumor.

Dr. Mason answered in the affirmative.

Dr. Flint remarked that the opinion at one time revailed, that double murmurs never occurred under ose circumstances, except when an aneurismal tumor xisted. Experience, however, had proved the con-ary to be the case.

Dr. Heitzmann remarked that it was of the greatest nportance to examine the lungs in these cases, as in ase the latter were affected it was presumptive proof gainst the existence of aneurism. At least Rokitansky ad shown that aneurisms of the aorta and phthisis lo not coexist.

Dr. Flint thought that the differences of age in vhich the diseases respectively occurred might in a neasure account for this, phthisis occurring usually nder thirty years, and atheroma much later.

FORWARD DISLOCATION OF HUMERUS AND FRACTURE OF THE GREATER TUBEROSITY.

Dr. Ripley presented the upper portion of the humerus, removed from the body of a gentleman aged ifty-four years, who died of phthisis two years after .n injury of the shoulder by a fall from his carriage. mmediately after the accident the patient consulted a omœopathic practitioner, by whom he was referred o a homœopathic surgeon. The latter gentleman diag-nosticated a dislocation of the shoulder, and attempted o reduce it. Assuring the patient that he had suc-eeded, he bound the arm in a sling and let him go. Dr. Ripley was sent for some time after to treat the atient for an ulcer of the leg. Noticing the position f the elbow of the injured side, he expressed his loubts that the dislocation had been reduced, giving t as his opinion that the head of the bone was still nterior to the glenoid cavity, and that there was also a fracture of the surgical neck. Dr. Sayre was called n consultation. He confirmed the diagnosis of dis-ocation, but thought that there was a fracture of the ead of the scapula. The man refusing to take ether, nothing was done. He, however, gained a very seful limb in time, the only thing which troubled im being his inability to comb the hair on the back f his head.

At the autopsy it was found that there was a for-ward dislocation under the clavicle, with fracture of the greater tuberosity. When the specimen was re-moved there was no opportunity to examine the exact relations of the parts, although the greater tuberosity was discovered moving easily and naturally under the coracoid process, the head of the bone having formed a new glenoid cavity between the first and second ribs.

HYSTERICAL VAGARIES—STRANGE SUBSTANCES IN THE RECTUM.

Dr. Heitzmann presented some macerated vegeta-ble material removed from the rectum of an hysterical female. On microscopical examination it was proved to have been introduced by unnatural means. After the patient was informed of this opinion, the peculiar disease of which she supposed herself suffering was at once arrested.

GLASS IN BLADDER.

Dr. Briddon, in this connection, related the case of a woman who was in the habit of introducing bits of glass into her urethra for the sake of being a patient in the different hospitals of New York. At the time she was an inmate of the Presbyterian he had extracted pieces of glass from the urethra, and after-wards narrowed its orifice by encircling it with a sil-ver wire suture. This obviated the necessity of any further operation.

EPITHELIAL TUMOR OF LABIUM.

Dr. Hinton presented an epithelial tumor of the right labia which he had removed by operation from a woman, aged sixty-seven years, a patient in the Presbyterian Hospital. About eight months ago, when the growth first made its appearance, the patient was teased with a desire to urinate four or five times during the night. At the time of its removal it was twice the size of a chestnut, was ulcerating, and occu-pied the whole labium. The operation consisted in the removal of the latter, and the parts were brushed over with a red-hot iron. In the course of four or five days the sloughs separated, and the wound promised to heal kindly. The microscopical examination of the growth was made by Dr. Satterthwaite.

A LARGE CRANIUM.

Dr. Briddon exhibited, on behalf of Dr. Metcalfe, who in turn had received the specimen from Dr. W. H. Geddings, of Aiken, S. C., the completely ossified skull of a male negro, aged seven years. The intel-lect was not markedly defective. The following were the measurements of the cranium:

Circumference, 25¾ inches; from foramen magnum to fronto-nasal suture, 20 inches; from one zygomatic process to the other, 17¾ inches; from one fronto-malar suture to the other bisecting parietal bosses, 20¼ inches.

Dr. Hinton referred to the case of a young boy, now living on Seventh avenue, who had a skull larger than the one shown, and who, as far as he could see, was ordinarily intelligent. The body then went into Executive Session.

Correspondence.

EDGEWISE DISLOCATION OF THE PATELLA.

To the Editor of The Medical Record.

Sir:—Having this moment received the number of the Record, dated Dec. 30, 1876, I hastily opened it with my usual expectation of finding something new and interesting, and, as is my custom, read the "Con-tents" first. The case of Dr. A N. Dougherty, of "Edgewise Dislocation of the Patella," interested me, and on turning to it, found it to be so nearly the counterpart of a case which came under my observa-tion about four years ago, that it may prove worthy of record. The patient was a merchant of this city who, in company with a few friends, were showing a stranger *the sights*. On entering a house of "easy virtue," my patient was met by one of the inmates, and invited up-stairs. He at once assented, and on attempting to ascend the steps was playfully caught by the right foot by one of his friends. He very naturally struggled to liberate himself, and in doing so fell to the floor, a distance corresponding with the height of three or four steps of an ordinary stairway. It was at once observed that he was seriously injured, and I was summoned to attend. On my arrival, about

fifteen minutes afterwards, I found the patella of the right knee dislocated edgewise, exactly as described by Dr. Dougherty, and I reduced it in precisely the same manner. Having had no precedent to govern me, and having forgotten the instructions given upon the subject by the celebrated authority quoted by Dr. Dongherty, it occurred to me that the forcible straightening of the leg might, the system still suffering from shock, so relax the tense muscle as to enable me to reduce the dislocation. This was accordingly done, and on the application of considerable pressure to the projecting edge of the patella, reduction was effected with an audible snap. A high degree of inflammation ensued, necessitating the application of ice-bags. Subsequently, a straight splint was applied, in order that my injunction of *absolute rest* might be observed. After the expiration of three weeks an elastic cap was applied, and the patient allowed to leave his room. No untoward event followed, and he made a good recovery.

If Dr. Dougherty's case be the fourteenth on record, this will probably be the fifteenth. Be this as it may, neither case detracts from the merits of the instructions given by Professor Gross, for the principles upon which he has recorded his views are *correct*.

W. R. Cluness, M.D.

Sacramento, Cal.

ERYSIPELAS AND PUERPERAL FEVER.

To the Editor of The Medical Record.

Sir:—In my communication respecting "Erysipelas and Puerperal Fever," appearing in the Medical Record of January 13, 1877, I find myself reported as saying, first and second lines, "respecting the etiology of erratic erysipelas and puerperal fever," which should read, *respecting the etiology of erysipelas and puerperal fever;* also in the twenty-first and twenty-second lines, "The case proved to be one of well-marked phlegmonous erysipelas," which should read, *The case proved to be one of well-marked erratic erysipelas*, etc.

Yours respectfully,

Walter B. Chase, M.D.

Windham, N. Y., January 15, 1877.

[It is proper to state that the error arose from a misconception as to a correction of the original manuscript.—Ed.]

To the Editor of The Medical Record.

Sir:—Some time in '64 or '65, I think it must have been, I communicated a case to your paper, of the same character as that of Dr. Chase's in the last number. I had then but recently commenced practice in New York, and had charge of an out-door district—Demilt Dispensary. A young woman, within a day or two, it I remember rightly, after a comfortable confinement, was attacked with erysipelas, which involved in its course the whole head and face. I watched her with great interest; but what I feared and half expected never came, and she recovered, as most of our uncomplicated cases of idiopathic erysipelas do recover. I made inquiries quite largely among the profession of New York at the time, but found no physician who had had a similar experience. It was at the suggestion of several physicians that the report was given to the Record; nor have I ever since, until now, encountered another such case in practice or in print.

Will you allow me room for one more point? Just a year ago I was attending a little boy sick with erysipelas of face and head. His mother insisted upon being his sole nurse, and watching by his bed day and night. When he had been sick for full ten days, the mother was overwhelmed with a sudden illness, which carried her off in forty-eight hours. Nothing about her brief sickness was comprehensible to me, and an autopsy was solicited and performed. Upon opening the abdomen, the cause of death was at once apparent. There was almost universal peritonitis, of which, as I need not add, there had not been any of the ordinary symptoms during life. *She was menstruating when stricken down. Query.*—Was there any etiological connection between erysipelas, menstruation, and peritonitis in this case?

Yours respectfully,

Henry M. Field.

Newton, Mass., Jan. 14. 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 14 to 20, 1877.

McKee, J. C., Surgeon. Assigned to duty as Medical Director of this Department, relieving Surgeon Magruder. G. O. 1, Dept. of Arizona, Jan. 1, 1877.

Gibson, J. R., Asst. Surgeon Assigned to duty at Fort McPherson, Nebraska. S. O. 5, Dept. of the Platte, Jan. 12, 1877.

Ainsworth, F. C., Asst. Surgeon. Assigned to duty as Post Surgeon at Camp Grant, A. T. S. O. 1, Dept. of Arizona. Jan. 2, 1877.

Price, C. E., Asst. Surgeon. To accompany battalion of 4th Artillery to San Francisco, Cal. S. O. 5, C. S., Dept. of the Platte.

Wood, M. W., Asst. Surgeon. Assigned to duty at Camp Robinson, Nebraska. S. O. 5, C. S., Dept. of the Platte.

Rosson, R. L., Asst. Surgeon. Assigned to duty at Camp Thomas, A. T. S. O. 1, C. S., Dept. of Arizona.

Samuel Q. Robinson, M.D., and Wm. B. Davis, M.D. (approved candidates), appointed Assistant Surgeons, U. S. Army, to date from January 9, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending January 20, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Jan. 13.....	1	6	64	1	6	39	1
" 20.....	0	4	53	2	8	31	0

Mortality of different Diseases in different Months of the Year 1876.—Dr. John T. Nagle, Deputy Registrar of the Health Board, has compiled a very elaborate table of all causes of death during the past year in the city, showing the effect of temperature and meteorological changes upon monthly mortality.

He concludes that "the month of January was one of the most fatal months to persons suffering with small-pox, diphtheria, membranous croup, and puer-

al diseases; February, to those who had small-pox l whooping cough; March, to measles, puerperal eases, phthisis pulmonalis, bronchitis, pneumonia, oplexy, Bright's disease, and nephritis, and persons enty years old and more; April, to scarlatina; May, typhus fever; June, to suicides; July, to diarrhœal eases, alcoholism, scrofula and marasmus, tuberar meningitis and hydrocephalus, encephalitis and antile convulsions, diseases of the brain and nervous tem, drowning, sunstroke, and diseases of children der 5 years of age; August, to suicides; September, typhoid fevers, and December, to cancer and disease the heart. The actual mortality for the year 1876 s 29,152, of which 7,170 were under 1 year, 10,692 der 2 years; 14,208, or 48.74 per cent. of the total re under 5 years, and 1,739 were persons 70 years l and more. The month of July, however, is the healthiest month of the year, having caused 4,164 ths, and is especially destructive to children under ears, and particularly those suffering from diarrhœal mplaints: the number under 5 years that died dug this month was 2,708, of which 1,713 were from rrhœal diseases; August and March following next, th 2,750 and 2,729 deaths, respectively; the former nth caused 1,572 deaths in children under 5 years, which 805 were from diarrhœal diseases, and the ter month caused 1,238 deaths of children under 5 rs, of which but 34 were from diarrhœal diseases. nce, while the winter months produced a very small mber of deaths from these causes, they contributed gely to the excess in the summer mortality. Most ominent of all the causes of death for the year, thisis pulmonalis, or consumption, stands first on e mortality list, 4,194 persons having died from this adful disease, which has as yet baffled all medical ill for its cure. This disease was most fatal in the nth of March, and least fatal in June, having caused 5 deaths in the former and 309 in the latter month. llowing in numerical order are diarrhœal diseases, hich caused 3,782 deaths, of which 3,412 were chilen under 5 years of age. Diseases of the brain and rvous system caused 2,664; pneumonia, 2,542; phtheria, 1,750; bronchitis, 1,214; Bright's disease d nephritis, 1,132, and disease of the heart, 993, or .67 per cent., or more than three-fifths of the entire arly mortality was from these 8 diseases.

The deaths, as they are distributed by wards, acrding to the table here presented, will also prove structive in showing the effects of density of the popation and overcrowding upon the mortality. Thus, will be seen that in the fifteenth ward, with a poulation—according to the State census, taken in me, 1875—of 25,543, the total deaths were 467; while e fourteenth ward, with a smaller area, and a popution of 26,471, had 733 deaths, or with but 928 more habitants, it had 266 more deaths.

Prevention of Scarlet Fever.—The Board of ealth of Boston has caused a copy of the following rcular to be sent to every householder in the city. y a previous circular, physicians are directed to report once every case of sickness from this cause:

Boston, Jan. 9, 1877.

Scarlet Fever.—The Board of Health issues the llowing circular of recommendation with the hope at those not familiar with the care of scarlet fever, ay be benefited thereby: Scarlet fever is like smallox in its power to spread readily from person to pern. It is highly contagious. The disease shows its st signs in about one week after exposure, as a genal rule, and persons who escape the illness during a rtnight after exposure, may feel themselves safe from attack. Scarlet fever, scarlatina, canker, rash and rash fever are names of one and the same dangerous disease. When a case of scarlet fever occurs in any family, the sick person should be placed in a room apart from the other inmates of the house, and should be nursed as far as possible by one person only. The sick-chamber should be well warmed, exposed to sunlight, and well aired. Its furniture should be such as will permit of cleansing without injury, and all extra articles, such as window drapery and woollen carpets, should be removed from the room during the sickness. The family should not mingle with other people. Visitors to an infected house should be warned of the presence of a dangerous disease therein, and children, especially, should not be admitted. On recovery the sick person should not mingle with the well until the roughness of the skin, due to the disease, shall have disappeared. A month is considered an average period during which isolation is needed. The clothing, before being worn or used by the patient or the nurse, should be cleansed by boiling for at least one hour, or, if that cannot be done, by free and prolonged exposure to out-door air and sunlight. The walls of the room should be dry-rubbed, and the cloths used for the purpose should be burned without previous shaking. The ceiling should be scraped and whitened; the floor should be washed with soap and water, and carbolic acid may be added to the water—one pint to three or four gallons. The infected clothing should be cleansed by itself, and not sent to the laundry. In case of death from scarlet fever, the funeral services should be strictly private, and the corpse should not be exposed to view. Because children are especially liable to take and spread scarlet fever, and because schools afford a free opportunity for this, the Board of Health has excluded from school every child from any family in which a case of the disease has occurred, and has decreed that the absence shall continue four weeks from the beginning of the attack, except in cases subject to the discretion of the Board, and that the scholar, to be readmitted to his school-room, must have the certificate of a physician that the required time has passed. The proper blanks can be obtained at this office on application.

C. E. Davis, *Clerk.*

The Eye and Ear Infirmary.—The fifty-fifth annual meeting of the New York Eye and Ear Infirmary was held, Jan. 16, at the Infirmary, at Second avenue and Thirteenth street, Royal Phelps presiding. The following officers were re-elected: President, Royal Phelps; Vice-Presidents, Benjamin H. Field and A. Du Bois, M.D.; Treasurer, John L. Riker; Secretary, Charles M. Allen, M.D. Three vacancies in the Board of Directors were filled by the following gentlemen: Wm. E. Dodge, John Carey, Jr., and Jacob D. Vermilye. The Treasurer announced the following bequest and gifts: Estate of Thomas Barron, $5,000; B. F. Wheelright, $1,000; special gift of $50 from James S. Stokes, to provide spectacles for indigent patients; Mrs. A. T. Stewart, $2,000; F. W. Mayer, $100; J. J. Astor, W. C. Schermerhorn, J. B. Cornell, Rutherford Stuyvesant, J. D. Vermilye, and John Carey, Jr., contributed each $150, constituting them life governors. The annual report showed that 9,701 patients had been treated during the past year. Resolutions of respect and regret were adopted with regard to the deaths of Edward H. Owen, late legal adviser to the Board, Dr. George Wilkes, First Consulting Surgeon, and Dr. Herman Althof, Executive Surgeon. Dr. Charles M. Allin was elected Consulting Surgeon in place of Dr. Wilkes.

Prevention of Fires in Schools.—The Building Committee of the Board of Education of this city, to whom was referred a resolution, passed in December last, suggesting the necessity of drilling the children of the public schools in the proper conduct to be observed by them in case of fire, offered the following resolutions, which were adopted:

Resolved, That this Board deem it expedient to place Babcock's fire extinguishers in the several schoolhouses; and,

Resolved, That the Trustees of the several wards be requested to instruct the principals of the several schools and departments under their jurisdiction to train the pupils by necessary drill, so that they may, on a sudden emergency, be able to leave the building in the shortest possible time, and without confusion or panic.

Dr. George Thompson, of this city, met with accidental death from poisoning on Monday, Jan. 15, 1877. He was a graduate of the University of Vermont, 1864, was a member of the Medical Society of the County of New York, and Surgeon to the 9th Regiment, N. G. S. N. Y.

Heating Street-cars.—The subject of heating the street-cars is being discussed before a committee of the Board of Aldermen. From present appearances, by the time the testimony, pro and con, is taken, the weather will be warm enough to make any heating apparatus unnecessary.

Nitro-glycerine Explosion.—Jan. 18, a laborer in Sing Sing, in an attempt to dislodge a can of nitroglycerine from a hole in the frozen ground, was blown to atoms. Fortunately no others were injured. The excited inhabitants were busy for a long time in gathering the fragments of the body, one of which was found one hundred and fifty yards from the scene of the accident.

A Proposed New City Charter.—It is said a bill, amending the New York charter very materially, has been drafted by "a committee of city taxpayers," which provides that the office term of the Dock Commissioners, the Police Commissioners, Health Commissioners, and the Charity Commissioners, shall terminate ten days after the passage of the act, the Mayor to appoint their successors. The Police Department is, under the bill, to be composed of two "public commissioners of the city of New York," and the Health Board to control the Street-cleaning Bureau.

Capacity of the Human Stomach.—The capacity of the human stomach is estimated at two quarts. The recent exploits of a couple of Londoners prove, however, an exception to the rule. By a careful estimation of the quantity of food and liquor taken during a so-called spree, it would seem that each stomach held two gallons, or else there were no pyloric valves. The prospects for soon settling the question by an autopsical examination were at last accounts quite promising.

Inebriate Asylum, Binghamton, N. Y.—The annual report of the Inebriate Asylum at Binghamton shows that from May 1, 1867, to Dec. 31, 1876, 2,065 patients were treated. More than one-half of these were permanently cured. The receipts during the year, inclusive of cash on hand, amounting to about $7,000, were $43,714.25; the expenditure $38,319.03; cash on hand, $5,395.22.

Kentucky School of Medicine.—Dr. J. A. Octerlony has entered suit against the Kentucky School of Medicine for the recovery of fees which he claims are due him as professor in that institution for 1876. He avers that he received only five dollars, when he should have received seven or eight hundred. Possibly the deficiency may be explained as one of the results of the beneficiary system for which the school in question has gained such an unenviable notoriety.

Operative Fees to General Practitioners.—A writer in the *Lancet* claims that fees for attendance upon operations should be paid to general practitioners, when assisting, at the time the services are rendered; that they are always extra and special in their character, and are entirely independent of previous or subsequent attendance upon the patient.

Baltimore Medical and Surgical Society.—The following officers were elected for the ensuing year: Dr. W. W. Murray, president; Drs. R. W. Mansfield and S. W. Seldner, vice-presidents; Drs. W. Brinton and C. C. McDowell, secretaries; Dr. D. W. Cathell, treasurer; committee of honor, Drs. J. S. Lynch, A. B. Arnold, and L. B. Wintermitz; committee on lectures and diseases, Drs. T. B. Evans, J. J. Caldwell, and W. J. McDowell; executive committee, Drs. J. Morris, J. Rehberger, and A. F. Erich.

The late Dr. Geo. Wilkes.—At a meeting of the New York Medical and Surgical Society, held December 30, 1876, the following resolutions were passed:

Resolved, That the members of the Society have heard with deep regret the intelligence of the death of their late associate, George Wilkes, M.D.

Resolved, That we cherish his memory as that of a true friend, an upright and honorable member of our profession, a good citizen, and an honest man.

Resolved, That we recommend as worthy of praise and imitation his benevolence and disinterested kindness to the poor.

Resolved, That we sympathize with his family in the bereavement which they have sustained.

Resolved, That a copy of these resolutions be sent to the medical journals and to the family of the deceased.

James R. Wood, M.D., *President*.
R. F. Weir, *Secretary*.

Chief of the Bureau of Medicine and Surgery of the Navy.—Upon the retirement of Surgeon-General Joseph Beale, Chief of Bureau of Medicine and Surgery of the Navy Department, on March 3d, it is stated that Surgeon C. J. Stuart Wells will be promoted Chief of that Bureau.

Tenement-houses.—More than half the deaths in this city in 1876 occurred in tenement-houses, and yet not more than one-tenth of the population live in them.

Small-pox in New Orleans.—Since the 1st of January 117 new cases of small-pox have been reported to the Board of Health, including one case from the State-house. Several cases are reported among the troops in the Custom-house.

The Poor of New York—George Kellock, Superintendent of the Out-door Poor at the Department of Charities and Correction.—About 1,000 people apply daily for aid. With 1,700 families depending on us for daily bread, and with scores of fresh applications daily, the West Side Relief Association appeals to the public for groceries and clothing for distribution to the deserving poor. It does not ask money now, but would prefer gifts of provisions and cast-off clothing which can be given out at once. Unless gifts come in speedily, the Association will be compelled to close its doors.

Original Communications.

ON SOME CONDITIONS, PHYSICAL AND RATIONAL, IN EFFUSIONS OF THE PLEURA.

CONSIDERED WITH REFERENCE TO THORACENTESIS, FOLLOWED BY AN INQUIRY INTO THE CAUSES WHICH HAVE PRODUCED SUDDEN DEATH AFTER THIS OPERATION.

By BEVERLEY ROBINSON, M.D.,

SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL (DEPART. OF THE THROAT), ONE OF THE PHYSICIANS TO CHARITY HOSPITAL, NEW YORK.

Part II.

The idea that the operation of thoracentesis, irrespective of the entrance of air into the pleural cavity, causes the liquid to become purulent is based upon an erroneous hypothesis, proclaimed many years ago by Watson and Stokes. It is a belief, unfortunately, too, which amongst practitioners of Great Britain has been accepted and adhered to by many, as being perfectly reliable, on account of its origin. And yet it is one which has never been established, either by general statistics or by individual examples, closely observed. What the precise or final cause of this change of fluid, from serous to purulent, is, we do not yet know; but why attribute it to the trocar? Convincing proofs do not sustain such an admission, and reasoning by analogy only makes it a less probable cause.

If we consider, for instance, what takes place after the puncture of the abdomen, even though several operations be performed, we find that the liquid still remains serous. Why, then, in effusions of the chest, should we have a different result? It is proper, when a primary puncture is serous, and a second purulent, to search for the cause, or explanation of this change; but why accuse the operation? Experiments on animals, and numerous clinical histories, prove that puncture of the chest does not make the effusion purulent;* why not, therefore, consider, what is evidently of far more essential importance, viz., certain special individual and organic conditions, still badly determined, but nevertheless exerting a considerable and definite action?

We know, for example, perfectly well, when a state of great feebleness arises in the course of an acute pleurisy, that the liquid frequently becomes purulent. In a similar manner, we are aware that, owing to the influence of a cachectic condition, such as occurs near the fatal termination of certain chronic conditions (cancer, tubercle, etc.), serous fluid in the pleura spontaneously becomes purulent. Among the sequences, too, of an acute febrile affection, such as scarlatina, measles, typhoid fever, and still others, it is not very unusual to encounter the change just mentioned. Why certain general conditions, however, and more especially those in which the functions of nutrition are seriously implicated, lead directly towards purulent effusions rather than others, this is the knotty point which medical science has not hitherto unravelled.†

Again, we could cite numerous instances where thoracentesis has been the means by which a purulent effusion has been rapidly cured. Aran,* Roe,† Markowitz,‡ Bouchut,§ Sparks,‖ and others have reported such cases. It seems to me, therefore, to be somewhat irrational, on the one hand, to admit that puncture with a capillary trocar has occasioned a purulent effusion, and, on the other, has been the effective means of curing it. Now the cases of cure are certain, and contain no elements of doubt; whereas the cases of the former kind are but hypothetical, or at best sustained by very insufficient histories and statements.

But with the improved instruments of Potain, or Dieulafoy, and by exercising a very little care, the entrance of air into the pleural cavity may ordinarily be avoided. Occasionally, however, there may be a backward suction towards the chest, with the use of the apparatus just mentioned, which may draw some globules of air into it. These globules come from the tube connecting the canula with the syringe, or bottle of the aspirator, where a vacuum should be made previous to commencing the operation. If the still more improved form of aspirator, described by Fraentzel,¶ be employed, I hold, with this learned author, that the introduction of air into the pleura is absolutely impossible. Fraentzel's apparatus has the advantage over Potain's, in that it possesses a cock at the lateral tube, and India-rubber plates, "pressed in between the screw cylinder, by which the stylet is shut in absolutely air-tight and can be moved backwards and forwards without the admission of any air from without into the pleural cavity."

d. Thoracentesis should be performed in all cases as soon as the quantity of effusion is appreciably large. Many of the preceding arguments might again be employed to sustain this proposition, and others, too, which are already worn by the repeated use of writers on this subject.

In order to avoid vain repetition, I shall not speak of any of them, further than to emphasize the fact that similar arguments may be given for the withdrawal of a small quantity of liquid from the pleura, as if it were somewhat larger. From certain points of view, the damage threatened to the integrity of, or normal conditions within the chest cavity, are, without doubt, less considerable. But because the morbid changes are neither extensive nor very intense in character, their existence is none the less an actual evil and a future menace. For both these reasons, therefore, they should be got rid of in the surest and most rapid manner, consistent with the welfare of the patient.

In a very interesting letter to Dr. Albutt, of Leeds, England, published in the *Practitioner* for April, 1873, Dr. Bowditch, of Boston, remarks that he has perhaps erred in not operating immediately after finding fluid effused, even to a moderate amount. "My reason," he adds, "does not give me valid grounds for delay, and certainly my experience of the effects of the operation suggests nothing but that pleasant results would follow it *whenever performed*." Can any statement be more persuasive than this, in support of my own opinion? For be it remembered, that it is a textual citation of the declared conviction of one who, among living authorities, has had possibly a wider experience of the operation of thoracentesis than any other practitioner of whom we have cognizance. There is one objection, however, against puncture in very small effusions, which should be combated in this place, viz., the accidental wound of the

* Vergely, Mémoires de la Société Méd. Chir. de Bordeaux, 2me. fasc., 1867, p. 41.
† Damaschino, La pleurisie purulente, Thèse, Paris, 1869, p. 23.

* Bull. de Thérapeutique, 1859.
† The Lancet, 1860.
‡ Thèse de Paris, 1865.
§ Gazette des Hôpitaux, 1872.
‖ Med. Times and Gazette, 1875.
¶ Berl. klin. Wochenschr., 1874, 12.

lung. Already, on several occasions, the lung of man has been punctured with a small capillary needle (No. 1), and under no circumstances has the slightest accident taken place. Besides, experimental punctures have been frequently made, and, as it has been shown, without untoward consequences resulting from them. Occasionally, it is true, a patient has expectorated a small number of sanguinolent sputa, after the lung has been wounded; but this is an insignificant phenomenon, or one, at all events, without gravity, and in cases where pneumonia exists concomitantly with pleuritic effusion, a local bleeding thus performed may prove to be useful. In one recorded case, even though the puncture of the lung was undoubted, and repeated on three successive occasions, the painful sensation of a pointed instrument entering the pulmonary tissue was the only unpleasant consequence of the use of the aspirator.*

Moreover, according to Dieulafoy, the function of the lung is the condition, in the event of a mistake, which alone will allow the diagnosis to be established with certainty.†

It was formerly conceded by many that the principal indication for operating was found in the degree of dyspnœa. If the dyspnœa were great, it was thought best to operate, if only moderate, we should watch and wait. Unfortunately, such a system has frequently led to unhappy consequences. Though great care had been exercised by the attendant physician, orthopnœa has suddenly declared itself, and a fatal result has followed before adequate aid could be afforded. Already I have shown what valuable signs may be furnished by auscultation and percussion. Now, if these physical methods of investigation inform us positively that the effusion is increasing rapidly, no matter what may be the degree of oppression, whether it be slight or intense, *the formal indication is to operate*, for the dyspnœa is no guide to the quantity of the effusion. And while there are frequent cases where the dyspnœa is intense and the effusion small, there are others where the oppression is slight, and yet the physical signs of a large effusion can be unerringly discovered. When, however, we are assured of the existence of a large quantity of fluid in the pleural cavity, and at the same time we find our patient laboring from considerable oppression and difficulty of respiration, we have, in these last symptoms, additional reasons for undertaking operatory measures. If, however, an abundant effusion be diagnosed, and yet the dyspnœa is very moderate, or, indeed, altogether absent, we should not, on this account, be deterred from an operation. The price of safety, let it be fully and clearly appreciated, is in the immediate use of the aspirator and the withdrawal of the greater portion of fluid in the chest. Finally, then, physical signs must be implicitly relied on as regards the opportunity of an operation, for rational signs are at best unreliable, inasmuch as they are not necessarily present. In this place it behooves me to bring clearly before your minds the question, whether or not, thoracentesis can be held fairly responsible for causing sudden death in cases of pleuritic effusion. In order to estimate this subject properly, we should keep steadily in view the rare facts, amply circumstantiated, however, that instantaneous death may and does follow in the natural course of pleurisy, and when no operation whatever has been performed. In this way we shall avoid attributing to surgical interference what is one of the occasional accidents in the disease under consideration. Whilst, however, we should exercise due and even severe scrutiny, before accepting evidence as valid, against puncture of the chest, if it be indubitably proved that this procedure has been the efficient cause of fatal complications, we should not allow any predilection of ours to bias us against what are just conclusions evolved by accurate analysis. But to analyse rigidly and afterwards make the manifest or essential deductions which proceed from our inquiries, asks for familiarity with all the elements and bearings of each case. Now, such knowledge has not always been possible in the instances I am about to examine.

Occasionally sudden death has occurred during, or shortly after thoracentesis has been performed, and for various reasons no post-mortem has been made. Several times, although the autopsy was carefully made, the cause of death has not been discovered at all, or indeed, owing to the fact that one or more sufficient causes of death have been recognized, our mind remains in doubt as to which was the really proximate cause, and how far, too, the others actually present exerted a modifying and important influence. Still, numerous facts remain, which permit me to affirm, on the one hand, that thoracentesis has frequently been a concomitant fact without probable influence over the fatal termination, and that death was sure to occur though the patient had never been operated on; on the other, that it undoubtedly was the determining cause in producing sudden or rapid death; but in nearly all these cases this result would have been avoided if our present knowledge had been put in requisition, and certain prudential methods of execution been strictly adhered to. The foregoing remarks being received for the time as indisputable, I shall now briefly abstract from the cases in point sufficient matter to enable me to establish my affirmations.

In more than one case reported, death could be justly attributed to an embolus of one of the middle cerebral arteries. Such are those referred to by Vallin, in a memoir read before the Medical Society of the Hospitals of Paris, in 1869, by Duroziez, in an article published in the Gazette des Hôpitaux, for 1870, and by Forster,* in a chapter upon embolisms after thoracentesis by aspiration, written in 1874. Very lately this subject has been learnedly reviewed by Desnos, in the Gazette Médicale.† In these instances, fainting and loss of consciousness took place, and was rapidly followed by hemiplegia, epileptiform convulsions, and death. The emboli originated most probably in thrombi, which had been formed in the pulmonary veins, owing to the compression of the lung-structure by a large pleuritic effusion, or in the heart affected with pre-existent valvular or fatty degeneration.

It has been shown latterly, in every case where convulsions have come on after thoracentesis, they have appeared while the fluid was being injected, and *not* while it was being withdrawn. This fact would appear to indicate that the *injection*, and not the emptying of the chest, had something to do in causing death, and in instances where embolisms have been found in different organs at the autopsy, the most rational explanation is that it served to detach a thrombus already formed—sometimes in the heart, more frequently in the pulmonary veins. But whilst the *injection* appears thus far to be more implicated than the puncture of the chest in occasioning these complications, still, as they may follow puncture also,

* Gazette des Hôpitaux, 1876.
† Loc. cit., p. 314.

* Clinical Lectures and Essays.
† April 22, 1876.

as it seems to me, it is not out of place to consider them. The practical deductions, from recorded examples, are, therefore: (1) to perform thoracentesis before these thrombi have formed; (2) to inject liquid, when required, into the pleural cavity, with very moderate force, and in limited quantities at one time, so as not to increase the pressure upon the pulmonary surface. And, further, they should teach us to beware attributing to these operatory procedures fatal consequences which, without them, might possibly have been retarded, but could scarcely have been altogether avoided. For the thrombus once being allowed to form, owing to blamable procrastination in operating, many other circumstances, arising accidentally, or in the usual course of events, might serve to detach it, and thus prove to be an equally efficient cause of death. The nature of the fluid used in injection of the pleural cavity seems to be without influence in causing the development of accidents. The manner of using it is alone of importance; and this is a point I would again strongly emphasize. Do not inject with too much force, nor in too considerable quantity at any one time; for, besides increasing pressure upon the lung directly, which, as stated, will have of itself a decided tendency to loosen a thrombus if formed, cough thus produced will exert an injurious action towards a similar untoward result.

In those cases where the above phenomena have been observed, and where no embolisms or thrombi have been found, in spite of a very thorough examination of heart, lungs, brain, and especially the medulla oblongata, the efficient cause of the convulsions has been differently interpreted. Coupland* has considered them to be due to the excitation of a puncture in a very nervous patient. What is meant precisely by "nervous patient" is not stated; and as to the exact signification intended by the use of this term, we are left to conjecture. Raynaud, with somewhat more reason, has claimed that irritation of the inner aspect of the walls of the chest cavity is sufficient to cause death by reflex excitation. In Raynaud's cases there is no history of epilepsy, and, though the urine had been examined shortly before the operation, no albumen was found. Uræmic convulsions may be, therefore, fairly excluded, and a direct relation of causality may be established between the operation and the fatal termination.

But what was this operation? Was it simple puncture followed by withdrawal of fluid? No; it was, again, singular to relate, puncture of the chest followed by repeated injections of tepid water through a canula into the inflamed pleura. These injections were at first innocuous. After a time the purulent area in the chest cavity had considerably diminished, and it was at this stage the epileptiform accidents took place. They were apparently brought on by a greater pressure or traction of the phrenic nerve at its diaphragmatic extremity from the injections. And this is explained by the fact that, at the period alluded to, the superior surface of the diaphragm represents the greater portion of the internal surface of the injected cavity, and on account, also, of its mobility supports mainly the effort exerted by the aqueous fluid. The irritation effected is transmitted by the phrenic nerve in a centripetal direction to the medulla oblongata—the excitation of which produces, as we are aware, epileptiform and syncopal phenomena. If Raynaud's explanation of death in certain cases, after repeated injections of the pleura, be correct, it may lead to a more prudent use of them, and even contra-indicate them altogether in cases where the pleural cavity has become very small. But does it in any manner affect the propriety of puncturing the chest so as to let out the liquid contained in it? But death may result from other causes than those just mentioned. In a case reported by Dr. Ernest Legendre (Gaz. des Hôpitaux, 1875), fifteen days after the beginning of an attack of acute pleurisy, thoracentesis was performed, and about three litres of fluid withdrawn. In a very short time after the operation, dyspnœa recurred, copious secretion into the air passages took place, cyanosis appeared, and death resulted from asphyxia in a few moments. The asphyxic state was occasioned here, no doubt, by rapid and overwhelming bronchial effusion in a lung bound down to the spinal column by plastic adhesions, and incapable, therefore, of rapid expansion to its normal capacity. Mr. Tenneson* relates a very similar case to that of Legendre's, where dangerous asphyxia took place after twenty ounces of liquid had been removed. In this example also the lung was unable to expand sufficiently to fill the chest cavity, owing to the formation of pseudo-membranes, and generalized congestion of its structure followed. These facts are corroborated by others mentioned by Behier, Lionville, and Terillon†—all of which prove that death has occurred from the pulmonary congestion and œdema, induced by too rapidly and thoroughly evacuating the thoracic cavity. In these latter instances, however, the pleurisy was complicated by other pulmonary lesion, which doubtless acted as a predisposing cause of a fatal termination. In all of them, if an earlier operation had been performed, or if, when performed, a smaller quantity of liquid had been withdrawn at one time, death in some instances, and dangerous asphyxia in others, would probably not have happened. In a few other recorded cases, sudden death resulted from morbid lesions wholly independent of the pleuritic attack and of the operatory treatment employed. In Addison's case it was due to hemorrhage from an ulcer of the stomach; in Liberman's it was occasioned by opening of the right gastro-epiploic artery, owing to extension of an ulcerative process, which had its primitive seat in the duodenum.

Finally, there is a numerous class of cases in which a suddenly fatal termination, probably due to syncope, has occurred. Such an one is that of Legroux, where the patient, on admission into the hospital, presented an immense effusion. The thoracic cavity was completely evacuated by the use of the aspirator, and three-fourths of an hour afterwards the patient died. Death was attributed in this instance to anæmia of the brain reacting upon the heart, and to a considerable and rapid flow of a great quantity of blood forcing itself instantaneously into the lungs, liberated by operation, from compression by the effusion. In my mind, there is but little doubt, if the operation had been properly performed in the above case, that a life would not have been uselessly sacrificed. It should have been made slowly and regularly, and soon interrupted, to be again resumed on a future occasion. Instead of that, it was performed hastily and inconsiderately, and without stopping once until the pleural cavity was emptied. No wonder, then, the economy was rudely shaken, that the brain was unable to do without any portion of its natural stimulus, and that the heart was overwhelmed in the midst of an immense effort to throw off pressure it could not withstand.

Again, the mere pain of the puncture has been con-

* Br. Med. Jour., Nov. 4, 1876, p. 605.

* Union Médicale, Feb. 22, 1876.
† Thèse de Paris, 1873.

sidered sufficient to arrest the heart-beats by reflex action. The case reported by Besnier is one in point. Here the liquid was slowly withdrawn by a trocar No. 2, of Matthew's apparatus, and with almost an excess of every precaution. But a few moments elapsed after the puncture, and only ten ounces of liquid had penetrated the receiving bottle, when suddenly the patient became frightfully pale, and was found to be without movement and pulseless. Energetic flagellations were practised with a towel immersed in cold water, after which two or three feeble respirations were noted, and a little foam appeared upon the lips. Nothing further was observed, and it soon became evident the woman was dead. In this and analogous instances, I can only admit the sufficiency of the apparent cause of death, where there is great failure of heart power. This may exist, as we know, even though the heart is not, in its exterior aspect, seriously affected, or at worst is somewhat enlarged and flaccid. Such cases are frequently encountered in other depressing diseases, owing to loss of nerve-force generated in the cardiac motor centres, rather than to the lack of tonicity in the muscular fibres.

Why, then, should they not be met with in pleuritic attacks, where the vital forces are oftentimes brought very low, owing to the intensity of the inflammatory processus, or else by reason of its long duration? Under these circumstances, a cause, usually disregarded, may induce syncope. It may be a slight emotion—it may be a sudden movement in bed, or in raising oneself to a sitting posture, which causes arrest of the heart's action. There is nothing, however, *specific* to cause death in the slight pain occasioned by puncture with a capillary needle. Pain from any other source will do as much in a very enfeebled condition of the organism. Clinical experience is not our only proof of the truth of this statement. Direct experimentation upon animals shows a similar result. Bernard, Chossat, Bernstein, Tarchanoff, and others, have demonstrated facts of the sort beyond peradventure. For in many of these experiments, also, the animal was in a morbid condition, had lost strength and nerve force, either from profound inanition, or from the presence or in consequence of an inflammatory condition. In others the definitive and mortal stoppage of the heart, was adjoined, evidently, to a pre-existing lesion of this organ. To my mind, all these citations, and any just conclusions to be drawn from them, rather support the advisability of an operation, and of an early one, than show contraindications of it. The danger, once again, in the treatment of almost all pleuritic effusions, is in delaying to operate until it is too late. The strength of a patient thus affected will at times rapidly give way, and if we are not convinced of the urgency of the case at the opportune moment, the efficient remedial measure will not be adopted in time, and a pernicious or fatal result may be the immediate consequence of hesitation and delay.

Moreover, from the foregoing remarks, it is at least evident that death follows after thoracentesis according to very different mechanisms. Its pathogenetic relations are, therefore, essentially distinct in many of these instances, which is probable—or they are similar in reality, though apparently various, which is doubtful, not to say impossible; surely, then, and even though we might be forced to concede that thoracentesis is occasionally implicated in the causation of certain effects, there are others which can have no relation with it whatever. Any other view would, of necessity, lead to absolute inconsequences of reasoning and practice. Now, in point of fact, all the following conditions, as already declared, have been found at one time or another, at the post-mortem examinations of patients who have died during or shortly after puncture of the chest with a capillary needle: Vegetations of the valves of the heart; fatty degeneration of this organ; cardiac thrombosis; pulmonary, cerebral, and spinal embolisms; acute œdema of the lung; pulmonary congestion; ulcer of the stomach; ulcer of the duodenum; and ulceration of the gastro-epiploic artery. Of them all I have found, by rigid and careful examination of the recorded cases, there are very few, even of those apparently due in a measure to the operation itself, which could not have been avoided, or absolutely prevented from occurring. And for this reason I do not hold the operation accountable for them. If we all of us would but operate in season, and with due regard to certain precautionary measures insisted upon in this paper, I feel satisfied we would have rarely a death to deplore in the course of idiopathic pleurisy, and the operation itself would again be almost universally considered as a curative method of great power, and nearly innocuous in its effects, immediate or remote. Hereafter, if, in spite of the light which actual research has thrown upon the interpretation of a complex problem, sudden deaths still continue to occur, it will be time enough to bring discredit upon what, in my estimation, is one of the most positive advances of our day, in the therapeutics of pleurisy with effusion, viz: thoracentesis by means of the pneumatic aspirator. Finally, then, as a practical conclusion of the preceding article, I offer the following to Fellows of the Academy and to the profession in general: Inasmuch as it is proved that puncture of the chest-walls, with a capillary needle attached to the improved aspirator, whenever performed with due precautions against the entrance of air into the pleura, is a perfectly simple and harmless operation, and, further, that any appreciable amount of liquid, irrespective of its nature, is by its presence pernicious, and may become dangerous: therefore I hold that, *in all cases of pleuritis, in which fluid is present, we should without hesitation make use of the aspirator to withdraw the morbid effusion.*

To this law I shall only affix *one* limitation and *one* exception.

The limitation is: Whenever very large or excessive quantities of fluid are present, it is wiser to puncture the chest on two successive occasions, so that all risk of acute œdema of the lung on the affected side shall be avoided.

The exception is: If the patient be very much enfeebled and the effusion be small or moderate, we may with advantage delay the operation, during a brief period, until his forces have been somewhat re-established.

By proceeding after this manner, all danger of *fatal syncope* * will be obviated.

Meanwhile, of course, if the effusion from small, or moderate, rapidly becomes large or excessive, the formal and imperative indication is to operate so soon as possible.

Fires in Theatres.—The press of London is unanimous in advocating precautions regarding fires in theatres. The plan of making the scenes and dresses non-inflammable is the one which meets with most favor.

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* In syncopal states there is anæmia of the brain, which is often successfully treated by placing the patient flat on his back. In view of this fact Marrotte † has recommended to operate while the patient is in a half reclining or completely recumbent posture, so that there may be less predisposition to this condition. This practice seems to me judicious.

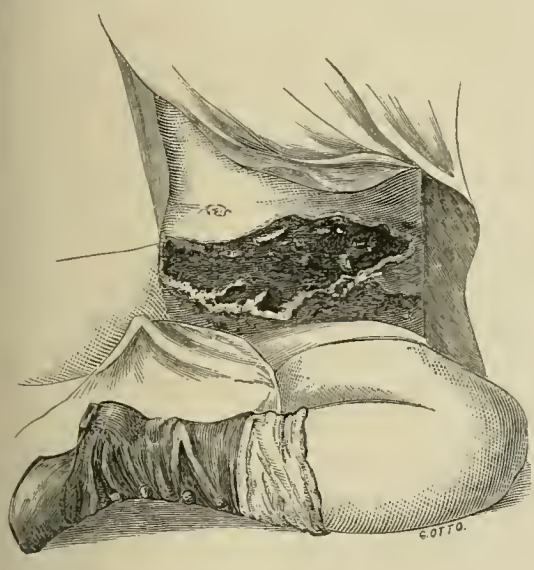
† Gazette Med. de Paris, May 13th, 1876.

A NOVEL AND UNIQUE LESION OF THE INTEGUMENT OF THE ABDOMINAL WALL.

By JOHN S. COLEMAN, M.D.,

AUGUSTA, GA.

I PUBLISH the following notes of an obscure and interesting case with the hope that some one, better versed in neuro-pathology than I am, will unravel the skein:—The patient, a child three years of age, frail and delicate, and with occasional attacks of malarial fever from its birth, was struck, standing, in the lumbar region by the back of a chair in which was seated another child of about the same age. The blow was sufficient to fell it to the floor with the weight of both child and chair upon its loins. At the time the child was not apparently seriously injured. I was not called until the fifth day after the accident. I found the little patient prone upon the bed, with its knees well drawn under the body, and the abdomen supported upon a pillow. The loins were considerably bruised, and the right lumbar region exquisitely tender, swollen, and indurated. At my visit on the morning of the eighth day I noticed that the child was supine in its mother's lap, and that there was a broad dark mark across the abdomen below the umbi-



licus. In the shaded light of the room it had the appearance as though the part had been painted with strong tinc. of iodine. On opening the shutters it presented the bluish-black aspect of senile gangrene, was of irregular form, six inches in length and two inches in breadth; the greater portion say two thirds to the left of the median line, and the other third upon the right. The entire surface bordered by a bright areolar of about half an inch. After a few days minute vesicles appeared upon the central portion; these were soon converted into large bullæ, containing fetid sanious serum. The line of demarcation was, after a few days, more fully formed, and the slough rapidly separated. The cicatrization was complete in a few weeks under the constant use of a solution of boracic acid.

What is the pathology of this case?

Note the position of the patient and the smooth floor against which the abdomen of the child came in contact.

Is it possible that the resilient abdominal wall could be so injured by contact with the floor? I think not. Dr. Weir Mitchell says "Short of a cannon-ball bruise we do not see death of a part caused by blows."

The only tenable theory to my mind is that of an injury to those branches of the vaso-motor system of nerves which supply the portion of the abdominal wall (or rather integument) implicated in the slough, producing infarction or a stasis of the circulation in the part sufficient to cause its death.

DIGITALIS IN SCARLATINA.

By DANIEL LEWIS, M.D.

NEW YORK.

THE following suggestions on the use of digitalis in the treatment of scarlet fever, are offered at the present time, because of the prevalence of the disease in this city, as well as in many other portions of the country.

My attention was first especially directed to this subject by reading the clinical lecture on "The Principle of Physiological Antagonism as applied to the Treatment of the Febrile State," by Prof. Roberts Bartholow, of Cincinnati. (American Clin. Lectures, Vol. II., No. 1.)

His theory is based upon the demonstrated effect of the drug upon the pneumogastric nerve, which action he arranges as follows:

1. Contraction of arterioles and diminished blood supply. 2. Exudation checked or prevented by the heightened tonicity of the vessels. 3. Depression of the temperature. 4. Lessened action of the heart and increased power. 5. Arterial tension raised.

Since the pulse is very rapid in scarlatina, with high temperature, low arterial tension, and embarrassed secretion by the kidneys, the range of antagonism is complete.

Prof. Bartholow declares that, in a considerable experience in the treatment of scarlatina, he has found digitalis uniformly successful, and, taking in a group the ordinary cases of scarlatina simplex and scarlatina anginosa, it is the most efficient remedy we possess.

The chief dangers in such cases are the pyrexia and the consequent degeneration of tissues, and the catarrhal or parenchymatous nephritis, by which elimination by the kidneys is diminished or arrested. Digitalis obviates both these sources of danger by lessening the blood supply to the tissues, and increasing the water in the urine by raising the blood-pressure, and also by its direct action on the Malpighian tufts.

This particular effect of digitalis, in preventing nephritis and other glandular inflammations, has rarely been mentioned by other writers; but an article appeared in the *London Lancet*, January 23, 1869, by Dr. Sydney Fennel, in which he recommended it very highly for lessening inflammation by its effect in reducing arterial tension.

He has used it largely in scarlatina, and says that, when administered early in the fever, the inflammatory action in the glands of the neck subsides gradually. The fever leaves the patient in the usual time, desquamation is very slight, and the chances of chronic nephritis are reduced to a minimum. He also confidently asserts that the infectious character of the disease is lessened by the remedy, if not destroyed.

Thomas, in his article on Scarlatina in Ziemssen's Cyclopædia (Vol. II., p. 306), recommends digitalis

for reducing the frequency of the pulse, in doses of seven to thirty grains daily, according to the age of the patient.

I have used this remedy in thirteen consecutive cases of scarlatina.

The age of the youngest patient was ten months, of the oldest twelve years.

There was an abundant eruption in ten of the thirteen cases. Four patients had severe inflammation of the throat, with ulceration, diphtheritic exudation, and considerable glandular enlargement.

The temperature, when the treatment was begun, ranged from 103° to 106½°; pulse 120 to 148.

No suppuration of glands occurred in any case; the temperature was promptly reduced to 102°, or below; the pulse fell to 110–130, and there were no symptoms of nephritis except in a single case. In that one the digitalis had been discontinued, and on the fifteenth day there was a sudden rise in temperature, convulsive movements in the muscles of the left side, and a trace of albumen in the urine.

The digitalis was resumed, and in twenty-four hours all bad symptoms subsided, and the patient made a good recovery.

Four of the patients died; one on the second day, in which eruption was hemorrhagic; two with scarlatina anginosa, on the fourteenth and seventeenth days respectively, in which no physician was called till the fifth day, the immediate cause of death being asthenia; and one after four weeks, who, as I was told, had acute diarrhœa, although I was not again called to attend it.

I may add that otitis followed in three cases, but was so slight as to require little treatment.

The infusion of digitalis was the preparation used in all these cases, in doses of ʒ ss. to ʒ j. every four to six hours. The state of the pulse and temperature being the guides to the dose and period of administration, Prof. Bartholow insists that the genuine English digitalis should be used, and prefers the *infusion*, although a *thoroughly trustworthy tincture* may be employed.

The results of the digitalis treatment in my own cases have satisfied me that it is worthy of a thorough trial; and these notes are published with the hope that others may be induced to use the remedy, and, in due time, report their success or failure to the profession.

207 East 45th Street.

Progress of Medical Science.

Variations in the Number of White Blood-Globules in certain Maladies.—Dr. Henri Bonne, of Paris, has been convinced by his researches that there is a constant relation between the production of pus and the presence of an excess of white globules in the blood. Thus, during the evolution of an abscess, there is an excess of the white globules in the blood, but as soon as exit is given to the pus, this excess disappears. In the same way, the white corpuscles are found in excess when a suppurating wound exists. In all the internal febrile maladies, the period of leucocytosis does not seem to correspond to the time of the highest temperature, but to the formation of pus in the organism; thus in typhoid fever, the increase of the white corpuscles is observed at the outset of the disease and at the commencement of convalescence, and in pneumonia it is observed only at the period of hepatization. Dr. Bonne has also observed an evident relation between the eruption of a group of herpes vesicles and the number of white globules, the latter diminishing when the eruption appeared. The lochial discharge after parturition, and leucorrhœal discharges, are also accompanied by a diminution of the leucocytes. Dr. Bonne publishes thirteen observations, each of them being accompanied by a chart representing the variations in the number of white globules at different periods of the disease.—*Le Progrès Médical*, December 2, 1876.

Treatment of Glandular Swellings and Abscesses.—M. Quinart has had excellent success in twelve cases of adenitis, which he has treated in the hospital of Ghent, by means of blisters. He is not content with attacking simple engorgement of the glandular tissue at the outset with a series of blisters, as Nelaton advised, but he employs the same treatment when pus has already formed. He has in this way succeeded in obtaining resolution of suppurating glands, that have contained several ounces of pus. When the suppuration is already advanced, and threatens to perforate the skin, he punctures the sac, not through the spot where the skin is already thinned, but at the most dependent part of the tumor, where the instrument must traverse a larger extent of healthy cellular tissue. When the sac is emptied, it is covered, whatever its extent, by a blister which overlaps it on all sides by one or one and a half inches. On the next day the blister is dressed with mercurial ointment; as soon as the skin begins to cicatrize, a second blister is applied, and so on. By this procedure M. Quinart has succeeded in curing an abscess that extended from the angle of the jaw to the clavicle, and which contained over ten and a half ounces of pus. An opening was threatened in the centre of the tumor, where the skin was thinned. The tumor was punctured just above the clavicle, and then entirely covered by a large blister. On the next day the little wound was reopened by means of a stylet, and a quantity of serous pus escaped. On the third day the greater part of the sac was closed; the fluid that accumulated in the most dependent part was reabsorbed, and the patient now presents no mark of this immense abscess, except a small cicatrix above the clavicle.—*Gazette Médicale de Paris*, December 2, 1876.

Busch on Inflammatory and Necrotic Processes in Bone.—The various stages through which bone passes from inflammation to total necrosis have been carefully studied by Professor Busch, of Berlin, in a series of experiments on animals; and his results throw some light upon these rather obscure processes. His plan was to bore into the medullary canal of a long bone, near the articular extremity, then pass a wire of platinum or iron along the cavity, bringing it out again through a second opening near the opposite extremity. The wire was then heated to whiteness by the galvano-caustic battery. In a large number of cases various degrees of damage were done to the bone; in some, however, where the platinum wire had been allowed to remain in the bone, no apparent reaction was produced, while the holes through which it had entered were closed. These results tally with those published by Cruveilhier in 1816. Necrosis, the author believes, does not in such cases depend upon the mere presence of a foreign body, but upon some of the physical qualities that are associated with it. The expansion of laminaria, when introduced into the medullary cavity, determines the necrosis; and so with platinum or iron, the chemical or other qualities associated with it are the real exciting agents. Four grades of inflammation, corresponding to the intensity of the cause, were recognized: 1, active inflammation

(ostitis); 2, death of a greater or less extensive lamella from the inner surface of the compact substance (necrosis interna seu centralis); 3, death of the entire thickness of the compact cortex (penetrating necrosis), or of the whole circumference of the bone (total necrosis); finally, 4. death of the entire bone, with perhaps some of the enveloping soft parts.

The first-named results were observed in three dogs, the examinations having been made on the 53d, 67th, and 73d days after the injury. The author also adds, as an interesting fact, that where necrosis was observed in one of the principal bones of the limb, it was not uncommon to find that the adjacent bone was affected with ostitis. The various stages of the inflammatory process in a bone were found to follow each other in the following order: Swelling and thickening of the periosteum; deposit of bone substance on the outer surface of the cortex; formation of bone in the medullary cavity; rarefaction of the tissue of the old compact tissue (enlargement of the Haversian canals, and with or without implications of the lacunæ), so that it looked precisely like the new bony matter; thickening of the outermost layers of the periosteal deposits, by which a certain sort of new bony cortex was formed; finally, there was an apparent compression of the inner bony structures by connective tissue, so that in this way there was a new central cavity partly filled with fibrous tissue.

In the cases in which the second grade of the process was observed, it was about the holes that had been bored. In the remainder of the bone there was ostitis. The sequestrum was not fully loose, the examination being made at times ranging from the 30th to the 57th day. The sequestrum was either tubular, or at any rate curved. There was in this case also a deposit of new bone beneath the periosteum, the direction of the new bony fibres being vertical to the surface of the bone. The thickness of the deposit was greatest over the centre of the bone. The separation of the sequestrum was caused by the development of granulations in the interior of the old compact substance, while its remaining portion, together with the new deposit, formed the involucrum. In the third grade, where the entire thickness of the bony substance was destroyed, the sequestrum had a smooth surface, like a macerated bone. A point clearly shown in this class of cases was, that, wherever the outer surface of the sequestrum was smooth, there was a corresponding opening in the bony capsule. In the two cases of total necrosis, the involucrum consisted of two parts, the support of the limb being maintained by the fibula. This fact is said to agree with the experiences of Scarpa, Sédillot, and others, that, where the entire thickness of the compact substance takes place, there is no regeneration of bone tissue. It is to be explained by the fact that in these cases the periosteum is separated from the bone, which sets up suppuration, and thus bone formation is prevented. In total necrosis the continuity of the bony involucrum is endangered; in penetrating necrosis a continuous involucrum remains. The early or late removal of the sequestrum appeared to have no influence on the formation of bone. In applying these results to the question of operative surgery in children and adults, the author believes that much the same consequences may be expected. In children, where there is total necrosis of a portion of the bone, if there is bony union, shortening may be expected; but he thinks that after the twenty-fifth year the cases are very rare in which bony substitution occurs after total necrosis.

Of the fourth class, where death of the entire bone took place, the animals all died at times between the end of the first day and of the first week. There was noreaction in any of them.—*Langenbeck's Archiv*, XX., 2, 1876.

Psoriasis of the Mucous Membrane of the Tongue and Mouth.—The following are the main conclusions given by Dr. Nedopil, of Vienna, as the results of his investigations on this subject. Psoriasis of the mucous membrane of the mouth is caused by a chronic inflammatory process, which has its seat in the mucous membrane proper. The result of this chronic irritative process is a new formation of young, indifferent cells. Of these cells, those situated nearest the epithelial layer are transformed into true epithelium; in this way we may explain the abnormal and enormous deposit of epithelium and its rapid regeneration. The epithelial layer itself plays a passive part; it does not participate in the regeneration of epithelium. This is also true in the healthy tongue. The remainder of the newly-formed indifferent cells are in part transformed into contractile cicatricial tissue, in part persist as round cells, and may supplant the rest of the mucous tissue. These indifferent cells may take on an epithelial character before they arrive at their destined position; carcinoma is then developed out of them.

Billroth, in a note to Dr. N.'s paper, while expressing the greatest confidence in the accuracy of the author's work, hesitates to accept his conclusions, and still maintains the old notion that epithelium only is derived from epithelium, and never from connective-tissue elements. As to the treatment of the disease, the author is opposed to the use of nitrate of silver, as it promotes the infiltration of carcinoma. Smoking should also be avoided and food that is either very hot or very cold. If an indurated or spreading ulcer forms out of an excoriation, or forms a fissure or psoriasis, the probability that the growth is carcinomatous is so strong that excision should immediately be undertaken, though it may have to be repeated many times.—*Langenbeck's Archiv*, XX., 2, 1876.

Leukæmic Tumors of the Skin and Intestines.—Biesiadecki held an autopsy in a case of leukæmia, in which, besides the ordinary manifestations of the disease, there were numerous tumors of the corium, that had developed slowly on the forehead, the face, the breast, and the extremities. They consisted of slightly projecting nodules, varying in size from a lentil to a bean, and possessed all the characters of leukæmic tumors, *i.e.*, the greater part of each tumor was made up of round cells resembling the largest white blood-corpuscles. Neither the spleen nor the lymphatic glands, although greatly swollen, presented changes that could be held to indicate an increased new formation of white blood-corpuscles within their tissues. The tissues proper of the spleen, liver, and kidneys were not only not hypertrophied, but were even atrophied. The white blood-corpuscles were altered, in consequence of an alteration in their protoplasm, and were deposited in those organs and parts of organs in which the pigmented cells are usually collected. The lymphatic glands only began to swell after the blood was already altered, and leukæmic tumors had already been formed in the skin. These facts have led Biesiadecki to adopt the view that the swelling of the spleen and the lymphatic glands, and the changes in other organs, in leukæmia, are secondary lesions, while the disease of the blood is the primary lesion; that leukæmia is a parenchymatous disease of the blood, in which the white blood corpuscles are produced in normal quantity; but a metamorphosis of them takes place which prevents them

from changing into colored blood-corpuscles. In the Museum at Cracow, Biesiadecki found a preparation, evidently taken from an individual who had died of leukæmia, in which there were tumors in the mucous membrane of the intestinal canal analogous to the tumors of the skin in the above case.

Ponfick describes a case of splenic and glandular leukæmia, in which the origin of the disease could be referred with much probability to an injury of the spleen. That organ presented the remains of a perisplenitic process, the consequence of a kick of a horse that the patient had received one and a half to two years before his death. The spleen also presented fresh hyperplasia, such as is met with in leukæmia; but it was slight in degree. The disease was far more advanced in the medulla of the ribs, the sternum, and the bones of the thighs and legs, so that the organ in which the affection had presumably started was affected to a relatively slight degree.—*Berliner klin. Wochenschrift*, 20. November, 1876.

On the Value of Salicylic Acid in Disease.—In the wards of Prof. Wunderlich, in Leipsic, salicylic acid was administered in nearly 200 cases during the years 1875 and 1876. From careful study of its action in this large number of cases Dr. Bälz, formerly first assistant at the Medical Clinic, has deduced the following conclusions: salicylic acid deserves, as a rule, the preference over all other antipyretics, but it fails in certain cases, in which other remedies produce valuable results. Cold water and quinine still retain possession of their therapeutic domain, in which the new remedy cannot rival them; in other words, salicylic acid is not a panacea, but a polyacea, and Kolbe is entitled to great credit for his pressing recommendation of the new remedy as an antipyretic. Apart from its antipyretic action, it increases the excretions from the skin and the kidneys, and may, in consequence of this power, prove useful in the treatment of some cases of dropsy. The unpleasant nervous symptoms, such as tinnitus aurium, deafness, delirium, and mania, which sometimes supervene during its employment, usually disappear spontaneously, and are not dangerous.—*Archiv der Heilkunde*, I., 1877.

Medicinal Properties of the Œnothera Biennis.—Dr. N. S. Davis, of Chicago, recommends the use of this plant as a mild but efficient sedative in nervous affections, especially where the pneumogastric is involved, since it is useful in respiratory or gastric trouble, where there is a morbid sensitiveness in the laryngeal, pulmonary, or gastric branches of that nerve. This plant, generally known as the evening primrose, is common in the Middle and Northern States. It may be used in the form of the infusion or fluid extract. One or two teaspoonfuls of the former may be given to adults; of the latter twenty or thirty minims may be repeated every three, four, or six hours.—*American Practitioner*, Jan., 1877.

Intussusception of the Trachea.—Dr. Lang, of Oehringen, reports the following interesting case: a man, about twenty-eight years of age, slipped while climbing into a plum tree, and fell, but his feet catching in the branches, he remained hanging head downwards. He made violent efforts to raise his body so as to grasp the branch with his hands, but was unable to do so, and remained in his uncomfortable position for an hour before help came. Immediately after the accident dyspnœa set in, and increased from day to day. It was especially severe, and even bordered on suffocation when the patient let his head fall forward; when he held his head erect with the chin elevated the symptoms were relieved, and his condition was bearable. He wore a stiff, high stock, in order to keep his head in this position. Many physicians were consulted by him, but none could discover the cause of the dyspnœa. Percussion and auscultation revealed nothing abnormal. Ten weeks after the accident the patient committed suicide. The autopsy revealed great enlargement of the space between the second and third tracheal rings, the stretched and elongated membrane being at the same time relaxed. When the head was flexed on the breast, the lower part of the trachea telescoped the upper part, the third tracheal ring being forced inside the second, and in this way the suffocative attacks were produced.—*Memorabilien*, 11, 1876.

The Excretion of Creatinin in Diabetes Mellitus and Insipidus.—Writers on this subject have usually agreed that the amount of creatinin excreted in saccharine urine is much less than in normal urine; in some cases none at all, or only slight traces of it being found. This seems strange, for two reasons: first, because diabetic patients are so generally confined to animal diet, and consequently take more creatin into the system than in a state of health; and, second, because examinations of the muscles, after death from diabetes, have shown that the amount of creatin contained in them is rather increased than diminished. Prof. Senator, of Berlin, in view of these facts, came to the conclusion that the failure to find creatinin in the usual quantity in the urine of diabetes, was due to imperfections in the method of seeking for it: and, after careful consideration and experiments, he adopted the following plan, which he has now employed, with satisfaction to himself, for several years: He takes one-fifth of the whole quantity of urine passed by the patient in twenty-four hours, leaves it till it ceases fermenting, and then evaporates it rapidly down to 300 c.cm., which is about equal to one-fifth of the quantity of urine passed in twenty-four hours in a state of health. During the evaporation an acid reaction of the fluid must be maintained—if necessary, by the addition of acids—as the change of creatinin into creatin is favored by an alkaline reaction. When this previous preparation is completed, the urine is to be tested in the usual way with chloride of zinc. Prof. Senator gives the results of nineteen examinations (ten cases) made in this way, which demonstrate that the amount of creatinin contained in the urine of diabetes mellitus is subject to great variations, being sometimes less than the lowest physiological quantity, and sometimes more than the highest. Consequently, neither an increase nor a diminution of the creatinin is characteristic of diabetes mellitus. In diabetes insipidus the excretion of creatinin is never so small in quantity as in some cases of diabetes mellitus. As the process of obtaining it is the same in both diseases, with the exception of the destruction of the sugar by fermentation, and as this fermentation has, according to Winogradoff, no influence on the creatinin, it is probable that, in many cases of diabetes mellitus, peculiar conditions exist, which lessen the excretion of creatinin or interfere with its separation from the urine. Prof. Senator examined the urine of five cases of diabetes insipidus eleven times for creatinin, and found that the average quantity (0.78 grm. in twenty-four hours) was very near the normal average (0.8–1 grm.). The average proportion of creatinin to urea in these cases was 1 : 65; in the cases of diabetes mellitus the proportion varied very greatly; the average normal proportion is 1 : 50.—*Archiv für pathol. Anat. und Physiol.*, LXVIII., 3.

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ASYLUM ABUSES AND THE TESTIMONIAL CAPACITY OF THE INSANE.

The case of alleged cruelty towards a recent inmate of the Bloomingdale Asylum, which, at the time of its being made public, created such a sensation, has been examined into by Dr. John Ordronaux, State Commissioner of Lunacy, who has published his opinion upon the same. It will be recollected that Mrs. Jane Norton was admitted to the asylum in question on the 22d day of January, 1874, suffering from puerperal insanity, accompanied by a fixed delusion affecting her memory of faces and persons, and with the additional delusion that to partake of food would jeopardize the lives of her children. The latter condition necessitated artificial feeding. About a year after her removal from the asylum she complained to her husband of injuries inflicted upon her while there, and particularly of one done to her throat "while being fed by her attendants, forcibly and against her will." An examination of her throat revealed gross disfigurement, which was mainly due to adhesions between the right lateral margin of the velum palati and the uvula, and which were plainly traceable to previous extensive laceration. The husband accordingly instituted proceedings before the State Commissioner in Lunacy against the Society of the New York Hospital as the responsible agents of the alleged tort.

Although the statute creating the office of State Commissioner in Lunacy was designed to provide immediate remedies for persons in the actual custody of asylums only, it is a matter of congratulation that the form of complaint was such as to give the Commissioner power to adjudicate in this case. The plaintiff brought the action, not for the purpose of recovering damages or of securing revenge, but merely to have it "inquired into whether the wrongs alleged to have been committed upon his wife are part of a system of erroneous supervision now in force at the Bloomingdale Asylum."

The opinion rendered, as the result of a very careful and impartial hearing of the case, is not only of value in a legal sense, but the arguments upon which it is founded have a very important bearing upon the value of testimonial evidence of persons who are or who have been insane.

It is, perhaps, unnecessary to say that the defendants denied any cause for action. Responding to the charges, however, they admitted that Mrs. Norton was a patient in the asylum; that it was necessary to feed her by force; that the person charged with that office was an attendant by the name of Jane Eaton; that said person was skilful, trustworthy, and experienced; and that the injury to the throat was accidental, and consequent upon the resistance offered by the patient. There were other items in the complaint and answer which, comparatively speaking, are of small importance, and upon which it is not necessary to dwell here.

As the testimony of the husband of Mrs. Norton was based upon hearsay, it possessed no legal value, and the onus of proof rested necessarily upon Mrs. Norton herself. It is in the discussion of points referring to her ability to testify, and to the relative value of such testimony when offered, that the case derives its greatest interest. The whole argument rested upon the establishment of the fact whether the witness, conceding her to have labored under mental delusion at some previous period, was at the time of giving her testimony of sound mind; and if so, whether her recollection of circumstances occurring during her insanity could be relied on.

Evidently desiring to establish a precedent in this case, and wishing to give it for that purpose the widest latitude for testimony, Dr. Ordronaux thought that the most equitable way was "to allow her to testify in her own behalf, without previous examination, leaving that testimony to stand or to fall as a test of her mental competency, according as it squared with itself and was corroborative of facts otherwise circumstantially established." This novel method of investigation leaves nothing to be desired as to impartiality, and admits of no question as to the legitimacy of the conclusions founded upon facts thus ascertained.

Aside from this, the precedent is of the utmost importance in establishing a certain right on the part of any lunatic to testify in his own behalf, and in effectually combating any idea of unfairness towards him which may be entertained by the community at large. Mrs. Norton was accordingly allowed to testify. The force of her testimony depended naturally upon her power to observe facts correctly during her period of insanity, and recollect them afterwards. Viewed from a strictly legal stand-point, the possibility of either conditions, in the absence of objective and corroborative proof, would not be entertained; but Dr. Ordronaux was willing to go beyond these rulings for obvious reasons. It will not be a matter of surprise to

learn that the investigation did not result in establishing any new points of testamentary capacity in favor of one who at one time had been a lunatic.

Although it was proven that she had a retentive memory, she was unable to recollect some of the most important occurrences during the period of her insanity, many of them associated with bodily pain; that she could not recollect the manner in which she was fed; and that she so far lost all memory of her most intimate friends, that she repeatedly and constantly mistook entire strangers for them, and *vice versâ*. In a word, during all that period, with a few unimportant exceptions accidentally corroborated by others, she was ruled by subjective sensations rather than by objective manifestations. Consequently, her testimony was thoroughly untrustworthy.

So far as a single case goes, this proves a great deal. The conclusions reached can hardly be questioned, founded as they are upon the careful investigations of a gentleman whose reputation as an expert in such cases is so deservedly and universally acknowledged. But, notwithstanding the result in this instance, it cannot militate against the general principle which Dr. Ordronaux has sought to establish, of allowing every lunatic similarly situated to offer personal testimony. Even if such a course is pursued upon merest presumption that such testimony may be of value, it is eminently justifiable as a happy mean to reconcile scientific fact with public prejudices.

While we may be willing to dismiss any charge of cruelty, either in intention or in fact, on the part of the managers of the Asylum, we must not lose sight of the elements in this case which refer to the responsibilities of the immediate attendants of the insane, and through them of the principals. In the absence of any testimony to the contrary, it is clearly proven that the injury to Mrs. Norton's throat was the result on her part of resistance to the necessary force to be used in feeding her; but, as Dr. Ordronaux very justly remarks, "the fact of such an injury, coupled with the want of knowledge of its existence by the physicians in charge of the Institution until a year after her removal, are incidents of asylum life which demand some official notice on my part." There is no reason why this should be so, unless as the result of culpable lack of skill or diligence, or both, on the part of the attendant. It is no excuse for the nurse that an insane patient makes no complaint. In the exercise of her functions as the constant and responsible attendant upon the sufferer, it was her duty to be cognizant of the slightest change in her condition, and to report it to the attending physician without delay. If such a course had been pursued, a monstrous public scandal might have been prevented.

Placing the most charitable construction upon this neglect of an obvious duty, we are reminded of the great difficulty in obtaining competent and reliable attendants in our asylums. Under the present system of asylum management there does not seem to be much hope for a change in this respect, and the best that can be done is to supplement such services with greater watchfulness on the part of the physicians; or, as Dr. Ordronaux suggests, a distinct and authoritative supervision of the attendants by an officer appointed for the purpose.

There is another element in the question of actual responsibility of the attendants upon the insane, and that refers to an unwarrantable exercise of discretionary powers. Nurses who have held a given position for years are apt to presume too much upon their own judgment in regard to the relative value of new symptoms, and to report only such changes as they themselves may think sufficiently worthy of the attention of their superiors. We are happy to see that Dr. Ordronaux so fully appreciates the necessity of remedying this abuse of trust that he has officially recommended that the attendants make minute and daily reports of all patients under their charge, and that such reports be suitably transcribed in the case-books.

Referring to the case as a whole in its sensational relations to the public, we are glad that it has been so thoroughly investigated. The charges of cruelty which were made, were, as we expected, without foundation. Those who were willing to wait for the hearing of the case before passing judgment, were certainly on the safe side. In the light of an assurance to the public that cases of the sort will always be investigated, that any existing errors of management either as those of omission or of commission will be promptly corrected, it is well that the examination was made necessary. Far from supposing the management of the Bloomingdale Asylum to be derelict in its duties to its patients, we find it anxious for any suggestions for improvement, and willing to co-operate with every effort of the most radical and extreme reformer.

So marked has been this disposition, and so desirous has been the board to anticipate any necessity of change, that the Commissioner merely announces his conclusions in the shape of suggestions instead of giving them the usual force of legal commands.

Antiseptic Ovariotomy.—Mr. Robert Barnes, of London, in reference to the question of priority regarding antiseptic ovariotomy, says that he performed "ovariotomy antiseptically, at St. George's Hospital (London) on the 3d of April last, and that previous to that time a successful case had been reported to him by the operator, Mr. John Cooper." He says: "Whether this plan will contribute materially to lessen the mortality attending ovariotomy is still to be decided. At any rate, high success has at present been achieved with it. In hospitals and where there is suspicion of infecting agency it may be judicious to resort to it."

Spiritualism and Insanity.—Dr. Carpenter, of London, asserts that investigations as to the nature and causation of what are alleged to be spiritualistic phenomena tend to mental unsoundness. He also declares that those who engage in this inquiry are on the road to insanity.

Reports of Societies.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting, January 5, 1877.

Dr. Charles M. Allin, President, in the Chair.

REPORT ON SYPHILIS.

Dr. R. W. Taylor made the annual report upon the above subject, and brought out, for the benefit of the general practitioner, salient points in the progress of the disease, rather than an elaborate dissertation suited to the demands of the specialists.

SYPHILIS AS A QUALIFYING ELEMENT IN THE REPAIR OF WOUNDS.

Reference was made, under that head, to reports of cases in which the affection had shown its unfavorable influence upon the process of repair; and the conclusion seemed to be that, in varying degrees, it was deleterious to the best interest of traumatism in general.

REINFECTION WITH CONSTITUTIONAL SYPHILIS.

It was regarded as important to determine whether reinfection was possible, for if established, it showed distinctly that one infection may run out; in other words, that the disease was curable. It was believed that a tolerable array of evidence existed in support of the doctrine that reinfection might occur. To a diagnosis of reinfection it was maintained that a general rash and adenitis were necessary.

MERCURY IN THE MILK OF NURSING WOMEN.

Reference was made to the observations of Klink, who held, contrary to the opinion expressed by Köhler, that mercury was present in the milk of nursing women under treatment for syphilis by the use of that drug, and that congenital syphilis might in that manner be cured. Klink was of the opinion that the reason why mercury had not been found by other observers was because of the insufficient quantity of milk obtained for examination.

COMMUNICATION OF SYPHILIS BY THE MILK.

In order to determine whether milk could communicate syphilis, Voss had obtained it from the breast of a syphilitic woman by expression, and injected three prostitutes by means of a hypodermic syringe. In one case syphilis followed, as proven by the development of a general rash and adenitis. He claimed, therefore, that the disease could be conveyed through the milk. Dr. Taylor criticised such conclusion on the ground that a single case did not prove the claim, especially as no evidence was given that there were not syphilitic lesions present upon the genitals and other parts of the body. Before such a case could be accepted it must be thoroughly positive that there was no point at which the syphilitic virus could enter save that where the milk was introduced.

SYPHILITIC RHEUMATISM.

From the report of Vaffier it seemed that syphilitic rheumatism occurred more frequently in France than might be inferred from the writings of other authors. It was claimed by the same writer that in China and Japan it almost invariably occurred in the secondary period, and in a form which could be distinguished from true and blennorrhagic rheumatism, and yielded readily to specific treatment. It was believed by the reader, however, that the greatest care should be exercised in separating the cases of so-called syphilitic rheumatism from cases of rheumatism occurring in syphilitic persons. Voisin had also maintained that arthropathies occurred in all stages of syphilis, and were not, as perhaps more generally believed, confined to the tertiary stage.

SYPHILITIC PHTHISIS.

From the evidence which had been furnished it was believed that syphilis was a possible cause of phthisis, and, according to Fournier, it produced its effects in two ways: 1, by the development of syphilitic lesions in the lungs (gummata, etc.); 2, in the same manner as any cachexia does. It was remarked, however, that care should be exercised lest phthisis, occurring in persons suffering from syphilis, be regarded as syphilitic phthisis.

SYPHILITIC LESIONS OF THE RECTUM.

According to Barduzzi, stricture of the rectum might be due to the following causes: simple ulcer, soft venereal ulcer, lesions of secondary and tertiary syphilis, and cancer. Dr. Taylor, from observations made by others and from his own, was inclined to the opinion that there was some tendency to hyperplasia of connective tissue in the rectum in syphilitic persons. It was unattended, however, by pathognomonic symptoms, and the same condition of affairs might occur in persons who were not syphilitic. Dr. Taylor was prepared to admit that gummata and late tertiary lesions might produce stricture of the rectum, although he had never been able to diagnosticate such cases. Fournier had cited such instances, but at the same time had regarded them as very rare. Again, it was believed to be important to always bear in mind the question: was it a case of stricture of the rectum dependent upon syphilis, or was it simply a stricture of the rectum occurring in an individual suffering from syphilis, but developed independent of the specific disease?

TREATMENT OF SYPHILIS.

Reference was made to the studies of Guillaumet concerning the local use of *bi-sulphuret of carbon*, which acts as an irritant, a refrigerant, and an anæsthetic; but in spite of the irritation produced, granulations rarely became sufficiently exuberant to require destruction. Its odor could be corrected by the addition of essence of bitter almonds or of mint, and there was no danger of accident from its prolonged inspiration. Combined with balsam of Peru in the proportion of one part to thirty of the balsam, it seemed specially beneficial, and not unpleasant. Combined with tincture of iodine it was rendered more efficacious and its activity augmented. The following formula was used:

℞ Carbon bi-sulphur. . . . . ʒ ij.
Tr. iodini . . . . . ʒ iv.
Ess. menth. virid . . . . . gtt. xvi.
M.

The solution was said to be inodorous. It should be applied with a brush or charpie, being careful to avoid a flame, slightly dust the surface with bismuth, cover with charpie and a bandage. The remedy had seemed to succeed in cases in which iodoform had failed. One application daily was usually sufficient. Pick, of Prague, had given a convenient formula for the use of iodoform. It consisted of iodoform three, alcohol ten, and glycerine thirty parts.

Dr. McMaster, of New York, had recommended the use of a piece of wood covered with flannel and smeared with mercurial ointment, in the treatment of syphilitic stricture of the rectum. The plug of wood

was to be worn constantly and retained in position by means of a perineal band. No inconvenience had been complained of after the first twenty-four hours, and during that time only a slight discomfort had been experienced.

Regimbaud was of the opinion that the sulphur waters of Luchon, in France, were not of much benefit in the treatment of syphilis unless there was a coincident administration of mercury. He believed, however, that larger quantities of mercury could be given without producing salivation and gastric disturbance, when the waters were taken at the same time.

Sigmund had employed the bi-cyanuret of mercury hypodermically in the treatment of syphilis, but had reached the conclusion that it was not a remedy of very great value, was less efficacious than corrosive sublimate, which he regarded as less valuable than the mercurial ointment used by inunction. Sigmund preferred calomel injections to all other methods. Kroworzynski believed the bi-cyanide to be more suitable than the bi-chloride of mercury for subcutaneous administration, as it did not cause such severe pain, created only slight induration of the tissues, gave rise to neither inflammation nor abscess, and did not produce ptyalism or stomatitis. The size of the doses used by both observers was about the same, and consisted of one-tenth of a grain of the bi-cyanide to twelve drops of distilled water. The number of injections in Sigmund's cases ranged from twelve to twenty-nine.

Bamberger proposed an albuminate of mercury, as being more readily assimilated and causing less reaction.

Dr. Taylor's report gave evidence of having been drawn up in an honest and careful manner. Remarks, mainly in way of detailing the histories of obscure cases, were made by several gentlemen, and the Association adjourned.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON THEORY AND PRACTICE OF MEDICINE.

DR. GOUVERNEUR M. SMITH, CHAIRMAN.

Stated Meeting, January 16, 1877.

THE DISEASES OF THE CENTENNIAL EXPOSITION.

THE above subject being before the Section, Dr. AUSTIN FLINT remarked that it was quite probable the discussion would have chief reference to the etiology of *typhoid fever*: The following points were submitted for consideration. First, it was desirable, as far as possible, to determine the number of cases of typhoid fever occurring among those who had recently visited the Centennial Exhibition, as affording evidence that the disease was due to the reception of the morbific agent while there. In determining that point, it was important to take into account the period of time which elapsed, after visiting the Exhibition at Philadelphia, before the disease was developed. Such period must conform to that ordinarily elapsing, where a person has been exposed to the poison, before the disease was developed—namely, about two weeks. The fact, that three or four weeks had elapsed before the development of the disease, would rather exclude the cases from the list of those who had contracted it at Philadelphia.

Assuming that the disease involved a special cause, it was possible that facts might be gathered relating to certain important questions concerning the etiology of typhoid fever, which were at present *sub judice*.

Did the special cause of typhoid fever always involve the presence of a morbific virus? The view held by many of the profession, notably by Liebermeister, in Ziemssen's Cyclopædia, was, that a morbific product was essential in all cases; that the product was formed in the alimentary canal; that it escaped from the body with the dejections; that in the condition in which it escaped it was inadequate to produce the disease; but that after leaving the body it underwent certain developments or changes, which rendered it competent to produce typhoid fever. The disease was not, therefore, contagious, in the ordinary sense of the term, but was indirectly communicable in the manner to which reference had been made. Assuming that view to be correct, and assuming that the special cause of the disease was received at Philadelphia, there must have been dejections from typhoid patients there, furnishing such product, and circumstances for the changes or developments necessarily existing there at the same time. Were there any facts to be presented which had a bearing upon that question? On the other hand, was it a more probable view that the special cause of typhoid fever did not necessarily in all cases involve the presence of a morbific virus? Might not the special cause of the disease be produced without any such virus, under certain circumstances, and those circumstances relating to collections of human excrement?

Second, assuming that the special cause of the disease had been received by a certain proportion of those visiting the Exhibition, what had served as the medium for the introduction of such special cause into the body? Was it received by means of drinking-water, as it was altogether probable, that, in certain cases at least, it might be introduced into the body in that manner? For facts relating to pollution of the drinking-water by the introduction of sewage, reference was made to the MEDICAL RECORD for October 24th, 1876.

In connection with that question, it was also important to determine how far typhoid fever had prevailed in the city of Philadelphia—whether it had prevailed more extensively in those parts of the city supplied with water derived from the source in which the pollution was ascertained to exist, as compared with those districts, if there were any, which received water from other sources. It was regarded as desirable that some one in Philadelphia should now investigate and report the facts bearing upon the points of inquiry just suggested, whatever may have been the feeling of city pride regarding such inquiry while the Exhibition was in existence.

With regard to the pollution of drinking-water, it was to be considered that the quantity of organic matter present was not a guide to the existence or abundance of the special cause of typhoid fever. The special cause might be present with a small quantity of organic matter, and on the other hand a large quantity of organic matter might be present without embracing the special cause. In other words, it was the quality and not the quantity of the organic matter in the water which was capable of giving rise to the disease. Again, it was important to determine whether, among the persons who became affected with typhoid fever, deriving the cause at the Exhibition, there were cases in which drinking-water did not convey the poison into the system, because derived from sources in which contamination could not have occurred.

Drinking-water might be received into the system not as water, but as it was obtained in milk, beer, and a variety of beverages manufactured upon the ground.

Another point of inquiry would relate to the influ-

nce of accessory causes, such as over-exercise, mental xcitement, errors in diet, etc. It was, however, to be orne in mind that those causes were not competent in hemselves to produce typhoid fever, but they might ender the system susceptible to the influence of the pecial cause.

A discussion of the nature of the special cause of yphoid fever was not entered upon, but it was believed that the germ theory, the theory that the disease lepended upon the presence of low organisms, either nimal or vegetable, was the one which harmonized nore closely with our knowledge than any other. It vas believed to be the theory which had in its favor astly more probabilities than any other; and facts ould be more easily explained by reference to this heory than by reference to any other. Another point o be borne in mind, and one made by Liebermeister, vas, that the special cause of typhoid fever might ecasion disturbances of the alimentary canal, and nore or less general disturbance, without giving rise o the disease itself. It seemed to be a well-recognized act that a considerable proportion of visitors at Philadelphia, during the time of the Exhibition, suffered nore or less from disturbances of the alimentary canal nd general disturbance of the system. Then the uestion arose, were such disturbances due to the action of the special cause of typhoid fever without producing the disease itself, or were they due to accessory ircumstances? Brief allusion was then made to six ases which had fallen under the doctor's observation, nd which occurred after visiting the Exhibition, within the period corresponding to the period of incubation of typhoid fever. One case was characterized by repeated and profuse intestinal hemorrhages. One case terminated fatally after a few days of sickness, and without important complication. One patient was sixty years of age; diarrhœa and tympanitis were prominent symptoms, and a fatal termination ensued.

In all the cases the symptoms were such as to scarcely leave a doubt regarding the nature of the disease.

Dr. O. White referred to several cases of gastro-intestinal disturbance developed while visiting the Exhibition, but had not seen cases of typhoid fever. The cases of gastro-intestinal derangement had been characterized by profuse perspiration and great prostration in many instances, and in almost all there had been present spots of hyperæsthesia. For example, in one case the attack was preceded and accompanied by a severe burning, stinging pain upon the anterior surface of the thigh, just above the knee; in two cases the burning sensation was at the back of the neck; in another upon the left leg below the knee; in still another one of the toes felt as if scalded, and, soon after, an attack of vomiting and diarrhœa was developed. In the last case the scalding sensation disappeared from the toe and appeared upon the left index finger. The doctor had not recovered from his own attack, and was obliged to take quinine daily. While at the Exhibition he and his party were not guilty of errors in diet, and drank little or no water. Dr. White was of the opinion that the accessory circumstances were not sufficient to account for the gastro-intestinal disturbance from which he suffered.

Dr. Leale referred to a case which he regarded as one positively of typhoid fever, and which could be traced directly to the Centennial. The patient was seventeen years of age, and on the fifteenth day after the chill had the eruption of typhoid, diarrhœa, dry skin, pulse 130, and temperature 106° F. For more than a week subsequent to that date the temperature ranged from 103 to 106½° F. The case was severe and prolonged, but recovery finally took place.

In several cases, symptoms like those introducing typhoid fever had been present; but the use of fifteen grains of quinine daily for a few days had broken up the attack.

Dr. Loomis had seen, since October 2, 1876, six cases of fever, which from their histories seemed to have their origin in a visit to the Centennial. All the cases had certain prominent symptoms, but differed somewhat in detail. He had not regarded any of them as cases of typhoid fever. In every instance the attack had been ushered in by a distinct chill. During the first few days there had been, without exception, marked remissions and distinct exacerbations; all had marked gastric disturbance at the commencement, followed or accompanied by diarrhœa, which in every case was of a brown watery character, and never assumed any of the characteristics of typhoid fever discharges; an eruption was present in all the cases, but it was not the typhoid eruption; as the cases progressed, the remissions became less marked, the exacerbations more distinct and prolonged, until finally the fever assumed all the characteristics of continued fever. The above was given as the history of all six cases. A peculiarity was, that the skin assumed, not a jaundiced hue, but a dark slate color, which seemed to be marked in all cases as they progressed. Hemorrhage from the bowels occurred in two cases late in the disease; in one it was quite profuse, in the other only slight. Pulmonary complication did not occur in any case. The severity of the illness differed: some were very sick; others only moderately so; one case terminated fatally. At autopsy intestinal ulcerations were found in all stages, from the slight enlargement of the intestinal glands on to destruction of the mucous membrane and invasion of the muscular coat beneath. In some places the ulcers had cicatrized. The patient died on the thirty-eighth day of the disease. There was pigment in some of the ulcers; the liver was pigmented and enlarged; the spleen was not so soft as in typhoid fever; the heart assumed very much the appearance presented in cases of death from typhoid fever. The intestinal ulcers differed in appearance from those of typhoid fever as the doctor had seen them. From the history, Dr. Loomis was led to regard them as cases of malarial fever assuming a typhoid type—perhaps might be called typho-malarial fever, or camp fever. Dr. Loomis had also seen a number of cases of gastro-intestinal disturbance, probably having their origin at the Centennial; but it had not been followed by marked febrile excitement. In one case the patient had twenty passages within twenty-four hours, and the only remedy which seemed to exercise any control over the diarrhœa was twenty grains of quinine.

The reasons for not regarding the cases as typhoid fever were, that the typical temperature was absent; they began with a chill; there was no characteristic typhoid eruption. There was tympanites and intestinal disturbances; but those were symptoms which were present in other than typhoid fever. The cases differed from typhoid fever in their duration; for it was very rare for typhoid to run longer than twenty-eight days. If it did continue longer, it must depend upon complications or relapse. In all six cases the fever ran five or six weeks, and convalescence was protracted.

Dr. Flint asked Dr. Loomis whether malarial fever possessed the capability of becoming typho-malarial fever without the agency of the special cause of typhoid fever.

Dr. Loomis replied that he did not regard typho-malarial fever as having any relation to typhoid fever, as far as cause was concerned. By typho-malarial

fever he understood a fever having a malarial element and an animal element, which he would call a septic element, due to an animal poison, which was not the specific poison of typhoid fever. In some cases the malarial element predominated; in others the typhoid, and the variations in the course of the disease corresponded, on the one hand, to the amount of malaria, and on the other to the amount of septic poison present, which was not the specific poison of typhoid fever.

DR. HADDEN—Does that fever reproduce itself?

DR. LOOMIS—I have not seen such instances.

DR. HADDEN—Has it not been considered that camp fever reproduces itself?

DR. LOOMIS—That was not our experience here during the war.

DR. HADDEN—My experience has been different.

DR. LOOMIS—I was not aware that camp fever was regarded as one having a contagious element, unless it be typhus, which has been called by that name.

DR. HADDEN remarked that the cases he had seen in camp were not pure typhus, nor were they typhoid fever, and yet the disease had reproduced itself.

DR. LOOMIS remarked that cases of typho-malarial fever varied in type according as the malarial element or crowding, as occurred in camp, was the stronger. In the latter instance almost all the characteristics of typhus, and but few of typhoid, fever were present. If there was any fever which the typho-malarial resembled more than another, it was the relapsing.

DR. HADDEN remarked that he had seen a number of cases of gastro-intestinal disturbance, and had been able to trace most of them to exhaustion, promiscuous eating, and other indiscretions while visiting the Centennial. Rest, regulation of diet, without much medication, had restored them to health.

DR. WARD had seen several cases similar to those mentioned by Dr. White, and all were relieved by quinine. They resembled cases seen in the swamps of Louisiana during the war. He had had one patient who was upon the Centennial ground a single day, took to her bed twenty-one days after, and presented well-marked symptoms of typhoid fever, such as chilly sensations, not distinct chills, at the commencement, diarrhœa, bloody stools, high temperature, with distinct evening elevation, delirium, and characteristic typhoid eruption. The case terminated in recovery.

DR. HADDEN inquired of Dr. Loomis, if, after having typho-malarial fever, there was an immunity from a second attack.

DR. LOOMIS was of the opinion that the first attack did not afford protection, any more than was seen in any other form of malarial fever.

Cases, not differing materially from those cited, were mentioned by several gentlemen present.

THE CHAIRMAN remarked, that it would seem, from the reports made, that visitors at the Centennial had been exposed to poisons capable of giving rise to a variety of diseases. For manifestations of mild malarial poisoning, of the influence of the specific cause of typhoid fever, and of the typho-malarial poison, had been noted.

It was remarked, by one of the gentlemen present, that the apparent presence of different poisons might be due to a difference of opinion regarding the exact nature of the disease which had been developed.

NEW YORK PATHOLOGICAL SOCIETY.—The committee on microscopy for the ensuing year is composed of Drs. T. E. Satterthwaite, J. A. McCreery, and Geo. F. Shrady.

Correspondence.

RETRO-PHARYNGEAL ABSCESS AS A SEQUEL OF DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Noticing an article in the RECORD of November 18th, copied from the *Jahrbuch für Kinderheilkunde* upon the above subject, and its rare occurrence in diphtheria, I take the liberty of enclosing an extract from my case-book, which may prove of sufficient interest to warrant publication.

Eddie N——, æt. 5, of good parentage and robust constitution, convalescing from an attack of diphtheria (which was developed suddenly the day after the commencement of the desquamative stage of scarlatina anginosa), had been troubled by a tumefaction at the back of the neck, which resisted all ordinary measures of counter-irritation, etc.

December 26th.—Was called suddenly, as great uneasiness, pain, etc., was occasioned by swelling. Upon examination great swelling and tumefaction under left ear was detected. Diagnosed a retro-pharyngeal abscess, although no fluctuation evident. Ordered flax-seed poultices and exhibited gr. ss. quinia sulphas every four (4) hours.

December 27th and 28th.—No embarrassment of respiration, but a steady increase of swelling.

December 29th.—Found him suffering intensely with great increase in tumefaction. Face slightly swollen. Can only take fluids by mouth; jaws stiff. Upon examination of the throat I found nothing that would warrant lancing. With a hypodermic syringe I punctured abscess behind ear, and at the depth of one and a half inches obtained a slight amount of pus. I made another puncture half an inch below lobe of ear, and at the depth of one and one-eighth inches in a *direct* line, aspirated over ℥ss. of thick, laudable pus, with immediate relief of distressing symptoms. Ordered a continuation of poultices, and exhibited quinia sulphas gr. ss. every two (2) hours.

December 30th.—Better, but an increase of swelling.

December 31st.—More uneasy. Some tumefaction of cellular tissue of face. Abscess increasing. Pain paroxysmal and intense. Tendency to point over seat of puncture. Ordered poultices, with laudanum and quinia as before.

January 1st.—Weaker. Abscess enormously distended and points, although matter deep-seated. Desired to lance, but at solicitation of parents delayed until next visit.

January 2d.—Opened spontaneously at about midnight, discharging *freely*.

The patient, upon the syrup of iron and quinia made a good recovery, and at present is nearly well.

J. W. BROWN, M.D.

MOTTVILLE, N. Y., January 13, 1877.

DR. HOLDEN'S RESONATOR.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Since the article in your recent number, entitled "A Discovery in Physical Diagnosis," I have received so many letters of inquiry that I trust you will permit me to correct an unintentional error in describing the particular "resonator" I have used.

As stated, the instrument was of soft rubber, ⅝ of an inch in internal diameter, with end pieces ¾ of an inch in diameter, of thin brass. Upon careful meas

rement of a piece of the tubing, unstretched, I find but ½ an inch in diameter, the rubber $\frac{1}{16}$ of an inch thickness. The distant end-piece is 1¼ inches in diameter and about $\frac{1}{40}$ of an inch thick; but a point which is of vital importance is that the mouth-piece —while of the same external diameter—in order to stretch the tube and produce narrowing, is itself narrowed inside to $\frac{5}{16}$ of an inch. This I now find essential to my results; but it was overlooked because the tube was a part of another instrument. The following are the exact dimensions of the tube used:

Material, soft rubber, $\frac{1}{16}$ of an inch in thickness; internal diameter, ½ an inch; length, 17¾ inches.

Distal end-piece of thin brass and ¾ of an inch in internal diameter, and $\frac{1}{40}$ of an inch in thickness, and ½ inches long.

Proximal end-piece (mouth-piece), of wood or metal. Same external diameter, and same internal *at its extremities*, but narrowed in its middle to $\frac{5}{16}$ of an inch and 1⅞ inches long. The mouth-piece of a trumpet would doubtless be better.

By giving a prominence to the above statement, equal to that with which the article in question was favored, you will, I doubt not, oblige the many subscribers who have written concerning it.

Yours truly,

EDGAR HOLDEN.

13 CENTRAL AV., NEWARK, N. J.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending January 27, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Jan. 20.....	0	4	53	2	8	31	0
" 27.....	0	6	76	6	14	32	3

HEATING THE STREET-CARS.—The investigations into this subject by the Committee of the Board of Aldermen seem to prove a great many contrary things. One party testifies that heat is detrimental to the health of the passengers, and another that cold produces the great majority of the cases of pneumonia, diphtheria, bronchitis, and the like. But there is a happy mean between a closely packed oven and a travelling ice-box. A step has been taken in the right direction, by the recommendation that the cars shall be properly ventilated, be plentifully supplied with clean straw, and have the front doors permanently closed during cold weather.

A NEW HEALTH BILL.—At every session of the Legislature there must of necessity be some radical measures for reform in city government proposed. Next to the affairs of the Police Department those of the Health Board receive the most attention from tinkering law-makers. Within the last few days a bill has been introduced into the Assembly creating a new Board of Health for this city. Why such a measure should be considered necessary we are at a loss to determine, and the more so when we become acquainted with its absurd provisions. The latter comprise the appointment of six commissioners to constitute the Board, three being members of the Police Board and three being physicians. The physicians are appointed by the Mayor, and are to serve for two, four, and six years respectively. One of these physicians is to be elected Sanitary Superintendent, at a salary of $6,000 per annum, and all the others are to serve the State gratuitously. The places of the sanitary inspectors are to be taken by the police surgeons. As there is not the slightest chance of the passage of this bill, we merely mention its presentation as a matter of form and an item of news.

TRICHINOSIS.—Several cases of trichinous disease have been reported in New Haven, Conn.

SIX MONTHS WITHOUT FOOD.—Another remarkable instance of life being sustained without food makes its appearance in the Pittsburgh (Pa.) *Telegraph*. The patient is a beautiful young lady, of course, with angelic eyes, fine plump limbs, and suffers from the dreadful affliction of having no board to pay, with a resignation in keeping with her saintly disposition. And, after all, what a pity it is she should be tortured thus, and that the most brilliant medical talent in the neighborhood is of no avail. How much longer she may live without food is a question which can only be decided by the degree of stupidity of such as may be willing to believe her story. At the last accounts she was 22 years of age, the picture of health, and weighed 150 pounds.

If the less she eats, the more she weighs, how little must she consume before she can weigh two hundred?

NEW YORK EAR DISPENSARY is in a flourishing condition, having afforded aid during the past year to five hundred and seventy patients. It is now in its eighth year of existence. Dr. Samuel Sexton is Surgeon in Charge.

A NEW FEVER COT.—Dr. G. W. KIBBEE, of this city, has devised a cot for the purpose of treating patients by cold water. It is constructed with two side-pieces, eight inches wide and six feet ten inches long, allowing room for head and foot boards, and leaving six feet six inches in the clear. To the upper edges of these side-pieces is fastened a strong open-work cotton blanket stuff, which permits the water that is poured over the sheet or bandage that encircles the trunk to pass readily through and fall upon a rubber cloth attached to the under edges of the side-pieces, and sloping towards the foot, so as to carry the water off into a receptacle. To the outer sides of the wide pieces, or rails, are screwed malleable iron castings that receive the ends of the legs which cross each other below, and are so bolted together as to be movable, allowing the bed to be closed up and set away when not in use. It is so constructed that it can be taken apart and closely packed for transportation.

Dr. K. writes: "This Fever Cot was invented in the summer of 1875, during a scourging epidemic of typhoid fever in the Willamette Valley, Oregon, to facilitate the use of tepid or cool water. For many years I had been in the habit of regulating the heat of fever patients with water, and found that the best effects were produced by pouring tepid or moderately cool water over the trunk through a folded sheet, or bandage of several thicknesses. That method being inconvenient, on account of soiling the bedding, I at last reached the idea of this Fever Cot, which obviates the whole difficulty. Water, at any desired temperature, can be poured or otherwise used without wetting anything but those articles used about the patient. It is wholly unnecessary to descan-

on the value of the *cooling process* in fevers, as the recent extensive use of water in the hospitals and private practice of Europe is well known through our medical journals and newspapers.

"The philosophy of Cold in all fevers is fast coming to light through the experiments by scientists on *fermentation*, it being found that the vitalized germs require a certain high range of temperature for such development and reproduction as render them dangerous or fatal to life in the higher forms of being. This Fever Cot is therefore offered to the attention of the medical profession, and the world at large, as the most feasible apparatus yet discovered for regulating the heat of fever patients, and keeping it at the normal standard, thus preventing all danger from infectious poisons, which, as has been proved by recent practice, can do no harm while the temperature of the blood is held at 98°."

Number of Students in the German Universities.—In the summer session of 1876, the number of medical students entered in the German universities was as follows: Vienna, 780; Würzburg, 527; Leipzig, 378; Dorpat, 353; Munich, 347; Berlin, 260; Greifswald, 235; Gratz, 194; Zurich, 193; Tübingen, 179; Strasburg, 178; Breslau, 165; Bern, 147; Erlangen, 141; Königsberg, 139; Freiburg, 128; Bonn, 127; Marbourg, 126; Göttingen, 112; Halle, 103; Heidelberg, 101; Giessen, 96; Jena, 82; Innspruck, 81; Basel, 76; Kiel, 73; Rostock, 29—in all 5,372.

The American Veterinary Review is a new journal, devoted to the interests of veterinary medicine and surgery, and published under the auspices of the United States Veterinary Medical Association. A. Liautard, M.D.V.S., is editor, and A. Lockhart, M.R.C.V.S.L., is assistant editor. Both of these gentlemen are well known in the veterinary world, and bring to their work rare abilities and extensive experience. The first number of this periodical appeared this month, and contains the following papers, read at Philadelphia on the 13th Anniversary Meeting of the Association, viz.: History and Progress of Veterinary Medicine in the United States, by Prof. A. Liautard M.D.V.S.; Zymotic Diseases, by Prof. James Law, M.R.C.V.S.L.; Use of Stimulants in Diseases, by A. A. Holcombe, D.V.S.; on the Causes of Some Chronic Lameness of the Foot, by Theod. Very, V.S.; and the Report of a Case of Erysipelatous Cellulitis, by E. F. Thayer, M.D.V.S.; on Sanitary Measures, by Prof. J. McEachran, M.R.C.V.S.L. All of the articles are of first-class merit, and if those in the succeeding numbers are equal to them in practical interest and strictly scientific value, the journal cannot fail to command not only a large patronage from veterinarians, but from the medical profession at large. We gladly welcome it to our exchange list.

Care of Criminal Insane.—At the recent Annual Meeting of the State Prison Association the following was adopted:

"*Resolved*, That a committee of five be appointed by the chair to investigate and report to this Association as to the condition and treatment of the insane in the various penitentiaries and prisons in this State and about this city."

The chairman appointed the following gentlemen to act as such committee: Charles H. Kitchel, Z. Styles Ely, Dr. Elisha Harris, James H. Titus, and Theodore H. Mead.

Small-Pox is still prevalent in London.

The London Pathological Society numbers 582 members.

Color Blindness and Railway Accidents.—There has been so much talk of late in regard to railroad accidents and color blindness of engineers, and signal men, that in France and England a previous ophthalmoscopic examination of the eyes of such persons is considered a necessary condition of their appointment.

The Turkish Army.—The health of the Turkish army is reported as good. The military hospitals at Nish are capable of containing 8,000 wounded; they are however little better than sheds, are badly drained and badly lighted. The balls from the Servian rifle are said to produce severe injuries, crashing through fascia, muscle, and bone, often splitting the long bones like wedges. In the majority of such cases repair is almost impossible, while amputation above the knee is nearly certain death.

Milk Inspection.—The Health Board has recently passed a resolution to the effect that the Board of Police detail two officers for the special service of inspection of milk under direction of the Sanitary Superintendent, and also that the Sanitary Inspectors perform such office in their respective districts. If the Health Board lactometer is to be depended upon as formerly, the inhabitants can be certain of obtaining what is facetiously styled by milk dealers a "Health Board" milk. It is to be presumed that there will be an active demand for Health Board lactometers. As the case now stands, the Inspectors cannot determine by the lactometer whether milk is adulterated with water or with cream, and practically it does not seem to be of much importance so long as the specific gravity is at the regulation level.

A New Journal.—Among our latest exchanges is the *Revue de Litérature Médicale*, a recent addition to the already large number of medical journals published in Paris. The greater part of the number before us is devoted to original articles—reports of societies finding apparently no room in it. One of the admirable features of the journal is a series of short notices of celebrated medical men of the past, accompanied by photographs. A less admirable feature is the reprinting of Rabelais' work, in a serial form, in the feuilleton. This looks like poverty of material.

Lacto-peptine with Quinine.—Dr. C. W. Davis, of Indianola, Iowa, speaks very highly of the use of quinine and lacto-peptine. He has sent us an account of some cases in which the use of the compound has been strikingly beneficial. He concludes that "lacto-peptine strengthens and invigorates the digestive system, causing the quinine to be rapidly and thoroughly absorbed, thereby securing the full effect of its great tonic and curative powers—requiring not over half the quantity of quinine to gain the desired result."

Johns Hopkins Hospital.—Dr. J. S. Billings, of Washington, and Dr. E. M. Hunt, of Metuchen, N. J.—who were recently sent abroad by the trustees of the Johns Hopkins Hospital for the purpose of examining into and reporting upon matters of hospital construction—have returned. While visiting the different charitable institutions of Europe, they had ample opportunities for collecting information, which will be made available to the great Baltimore Hospital.

Revaccination in London is being urged by the authorities. The *Lancet* thinks that the belief that, because revaccination fails to take, protection is complete, is a dangerous error, and says that fully ninety per cent. of revaccinations will succeed if done from the arm or with a well-charged tube of moist lymph.

Original Lectures.

EXAMINATION FOR LIFE INSURANCE.

By WILLIAM DETMOLD, M.D.

EMERITUS PROFESSOR OF CLINICAL AND MILITARY SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

(Phonographically reported for the MEDICAL RECORD.)

LECTURE I.

GENTLEMEN:—The subject of "Examination for Life Insurance" is one of great importance, not only to the community at large, but to the medical profession. It is probably a low estimate, when I state that the life insurance companies in this country pay annually to medical men the sum of one hundred and fifty thousand dollars for examinations; and that amount, for the most part, is distributed in small sums among the younger members of the profession. The object of these lectures is to give some idea as to what constitutes the duty of the medical examiner.

Life insurance, or assurance, as it is now called, is the insurance of a certain sum of money that is to be paid at the death of the insurer. The institution of life insurance has, if memory serves me right, its earliest date during the reign of Queen Anne, of England; but it did not amount to anything at that time, and it is only within the present century that the business has assumed large proportions. The amount of insurance on life in England is now over five hundred millions of dollars, and in this country it probably exceeds that sum by considerable. Those persons who live on a salary, or wages, or on the receipts from their business, and whose income naturally will terminate with their lives, must, as a matter of course, have anxious desires to secure to their families a comfortable subsistence in case of their own death. Now, if a man were sure that he should live to the average duration of human life, he might save from his annual income sufficient to secure his family against distress; but the life of the individual is exceedingly uncertain. On the other hand, there is nothing more certain than the average duration of human life. What is very uncertain in the individual becomes almost a positive certainty when a multitude of lives are made the basis of calculation. There are few things subject to less fluctuation than the calculation of the average duration of human life when it is made with reference to a multitude of people. Death from old age is very rare—bearing the proportion of only about five and a half per centum of the whole number of deaths. The tables known as "The Carlisle Tables" have given us the most accurate calculations regarding the average duration of human life; and although rather complicated, the probable duration can be reached in the simplest manner as follows:

To the age taken add two-thirds of the difference between it and eighty, and you will have an almost unerring calculation of the average duration of human life. For example, let us take the age twenty; the difference between it and eighty is sixty; two thirds of the difference equals forty; and forty added to twenty equals sixty, or the average duration. Of course this calculation does not apply to the individual; and it cannot be said of any one of you who may be twenty years old that he will live to see sixty years. But for a thousand persons at the age of twenty the calculation is correct, and will give an average duration of sixty years. Now, life insurance is based upon this calculation. The company fixes upon that annual premium which, at the end of forty years, assuming that the age of the applicant is twenty years, will enable it to pay the amount for which the applicant is insured. If, for example, one thousand persons, at the age of twenty years, insure their lives for two thousand dollars each—which amounts to two millions of dollars of insurance—promised to be paid at the end of forty years, the company divides that amount among the one thousand persons insured, so that with the accumulated interest it shall be able to pay the sum due at the expiration of forty years; of course, also providing for the expense of the business transaction. Suppose, however, that among these people—applicants for insurance—there are five hundred who are carrying within them the seed of early death; they have a phthisical diathesis, or any other which is likely to terminate life at an early date, then of course the calculation will not hold good, and the company will not be able to collect the amount necessary to meet the coming demand before it will be demanded. For that reason it is that every applicant for life insurance is subjected to a rigid medical examination. You will therefore easily comprehend that the corner-stone of the life insurance company is the medical examiner, and that upon him depends the safety of the company. He should not therefore acquiesce in taking any life risk which already contains the evidences of probable early death.

Medical examination should be made, as a matter of course, with judgment and discretion, but should be conducted with the special object in view for which they are made.

For example, you may be called upon, though I hope you never will, to make examinations for forced conscription, such as many were called to do during the late war in this country. In that case you may rest assured that all the men presenting themselves will exaggerate the slightest defect they may have, and simulate defects which they have not, in order to evade the service. In such an examination you have to guard against deceptions in a special direction, and have nothing to do with reference to the question of probable longevity. The question you have to answer is, Is it probable that he will be fit to serve for the term of enlistment? If he is able to serve as long as he is required, whether three months or three years, you will take him, without reference to the fact that some other members of his family have died early in life. On the other hand, if you are called upon to examine volunteers or substitutes, you have to deal with a class of men who wish to conceal their defects for the purpose of getting into the army or navy; but as soon as they are in, the concealed complaint shows itself; they are unfit for service, and will claim a pension. Again, you may be called upon to examine a person who is a malingerer, who prefers to draw a weekly stipend from some benevolent society rather than go to work or to war; in such case you have only to judge whether the person is able to do his work, of whatever kind it may be. If he is a scribe, and is lame, he can do his work. If he is a letter-carrier, and can walk without trouble, he can perform his duties, even though he does have a somewhat lame shoulder. The examination for life insurance, however, is entirely different. The recruit may be rejected because he has lost a finger or thumb; but you must recollect that does not interfere with the probable duration of life in his case, and he may enjoy excellent health, although not fit for a recruit. In life insurance examination you are to judge

of the probabilities as to whether the man is likely to have the average duration of human life.

Now, in applying for life insurance, every applicant is anxious to pass a satisfactory examination. Here, again, it will be necessary for you to guard against the deception which may be practised by the applicant in concealing defects which, if exposed, might be objectionable. You may remember, however, that the examination for life insurance, which is most likely to fall to your lot to make, is not final. The final decision, whether the applicant is to be taken, is made at the principal office. There are physicians there who will examine the result of your examination, and you are only to give such facts and data as will enable them to arrive at a correct and final decision as to whether the risk upon a given life should be taken or rejected. Before I proceed any further I wish to impress upon you the fact that there is one requisite which is pre-eminently necessary in the young examiner. I insist upon that, because it is a quality which should guide you and every man in all his pursuits; I mean strict honesty. The young practitioner in small places is exposed to great temptations. Suppose, for instance, in a small town an influential citizen, such as the mayor or the parson, fears that his health is failing; he has his first premonition of trouble about his heart; he has palpitation; and he concludes that he had better make some extra provision for his family; in short, he wishes to insure his life. Such a man's good-will might be of great use to a young practitioner in a small town, and it is a very easy thing, and it is very tempting, to overlook a little murmur about the heart, and so secure the influence of the influential man, and with that the good-will of a number of respectable families. It is very tempting; but it is nothing more than downright robbery. You may be certain the company will find out the facts in the case, for the companies investigate very thoroughly before paying the insurance, and upon the least suspicion your future service will be dispensed with. I can tell you a case in point. A very respectable congregation, "all honorable men," discovered that the health of their clergyman was failing, and a council was held. Inasmuch as he had been a faithful servant in the pulpit, they concluded that it would be no more than right to provide for his family to a certain extent, and at once applied to a life insurance company for a policy. When the doctor made his examination and rejected the applicant, the whole body of men were highly incensed because of it; they were surprised that he should disapprove of "one of the best notions in the world," and were not able to understand why he should refuse his consent to such a good scheme. But the examiner had heard a distinct murmur about the heart, and the parson died within twelve months. The congregation did not think it was robbing the company, but that it was wrong in the doctor not to pass the applicant.

Strict honesty to the examiner is much more important than scientific assumptions.

There are several books which have been published upon the subject of examination for life insurance. Some of them are very good books, but almost all the authors have fallen into the great error of going too much into detail. Too many of these books are nothing more than elaborate works upon auscultation. That is not what is required. You, as an examiner for life insurance, are not called upon for a scientific diagnosis; you are merely to judge of the probable duration of life, and it matters not a single particle whether a murmur, which may be present about the heart, comes from the aortic or mitral valves. It makes no difference, for if an organic murmur is present you should reject the application. You are not called upon to make a fine diagnosis, and to decide whether it be a case of stenosis or dilatation. Besides, it is hardly fair to expect a highly scientific diagnosis from the country practitioner. I do not use that word with the least degree of disrespect, but I suppose very many of you will settle in small places, which I hope will be large by and by, and it cannot be reasonably expected that the mass of the profession should be so thoroughly skilled regarding these delicate differences of sound in auscultation as to be able to make a finely accurate diagnosis. It is not expected of a man in large practice unless he can have the opportunity to verify his diagnosis by post-mortem examination. But what is expected and what is demanded, fairly and justly demanded, is that the medical examiner should be familiar with the normal sounds coming from the heart and lungs. When there is a deviation from the normal, that is sufficient. What that deviation is, is of no consequence. You hear some murmur about the heart; there is a certain amount of dulness or flatness upon percussion over some portion of the chest; it makes no difference in this connection whether there is hepatization or effusion or aneurism, but it is sufficient to know that there is something wrong in the vital organs, that the probabilities with regard to the duration of life in that person's case are diminished, and you reject the application. As I have already said, these books upon life insurance examination deal with the subject too much in detail. While thinking upon the subject of these lectures, I collected several books from our best medical examiners in this city, and there was not one of them in which the leaves were cut to any great distance. The examiners themselves had got tired of it after reading ten or twelve pages, because most of the books are nothing more than elaborate works upon auscultation and percussion. In case of doubt regarding any deviation from the normal sounds, either in the heart or lungs, your decision should be in favor of the company.

Now, all the companies have established and distributed a series of questions which the applicant must answer, and these questions are tolerably exhaustive. But you are not allowed to exercise any discretion regarding them, and it is not, therefore, worth while to discuss them in detail. All that you are called upon to do with reference to them is to see that the applicant fully understands every question which he is to answer, and to make him fully aware that any false statement in his answers legally vitiates his contract with the company. The company is not bound to fulfil its part, when the contract is made upon false presentations on the part of the applicant. Although that is all that concerns you regarding these questions, I will divide them, for the purpose of some general consideration, into three classes:

First.—Those which refer to the family history of the applicant.

Second.—Those which refer to the individual history of the applicant.

Third.—Those which refer to the present condition of the applicant.

First, as to the family history: that is very important. You should learn the age to which the various members of the family have lived, and a knowledge of the age which the parents reached is of great importance. There are certain families in which all the members are long-lived. In others they all die early; and yet there seems to be no special reason why this should be so. There seems to be in the individual members of some families more power of resistance to

noxious influence than in others. I may illustrate the point by the following anecdotes: Two or three years ago, while at a social gathering, the intelligence came that Dr. P—— was dying in Richmond. I ventured the assertion that the doctor would not die, and based the opinion upon the fact that his constitution was such as would resist a great deal before the powers of life would be overcome. The doctor recovered. Not long after, it was said that Dr. B—— was down with a slight attack of typhoid fever. I said Dr. B—— is doomed to die; and he died within a remarkably short period of time. I had not seen either of those gentlemen during their sickness; but the one had the make-up and the constitution to resist the effects of disease, while the other was of a build just the reverse. It is important to study the family history of the applicant as bearing upon the question of hereditary tendency to diseases, such as consumption, insanity, epilepsy, and many others, which may be transmitted from one generation to another. If diseases liable to hereditary transmission manifest themselves in the family history, they make the applicant objectionable. If the family history throws any suggestion in this direction you should at once direct your attention to the more complete investigation of the applicant himself.

On the other hand, for example, a man presents himself for examination; he is found to have a flat chest with high shoulders, and immediately you think he has rather weak lungs. You find, upon inquiry, however, that both parents reached an advanced age; none of the family have died of consumption; perhaps the father is still alive, old, but hale and healthy, and has the same kind of a chest; and you say this is a conformation of the chest peculiar to this man or his family, and endorse his application; whereas with such a conformation of the chest, and traces of consumption in the family history, you would most certainly reject the application.

Next, with regard to the history of the applicant himself. Here you are to inquire as to what diseases he has had; and are to determine whether he has suffered from diseases which are liable to leave behind them serious results, or from those which are likely to make relapses.

If, for instance, it is found that he has suffered from acute articular rheumatism, you must be very careful about the examination of the heart. In such a case, if the heart has a rapid action, although nothing morbid can be detected by listening to its sounds, and there is nothing in the rapidity of the action, which in another person might not be easily ascribed to mental excitement, or violent exercise, or to the use of tobacco, etc., it is better to reject the application.

If the person has the least evidence of albuminuria or diabetes, the more prominent symptoms of which may break out at any time, he should be rejected. There are many other conditions which might be mentioned, but this will be sufficient to illustrate the principles upon which your examination should be made.

Lastly, we have to consider the actual condition of the applicant, and this is mainly what will engage your attention. Now, before examining the applicant, inquire why he insures his life. If he is a young man in good standing, and has a family, and wishes to insure his life for a moderate sum, such as is proportionate to his circumstances, there is fair inference that he is honest in his motive for obtaining a life-insurance policy; there is no probability of any sinister, or foul design, to cheat the company, and you may be more lenient in your examination. But suppose that a man comes and wishes to insure the life of his wife, for his own benefit; that at once looks suspicious, unless he can show good reasons for so doing. Of course you do not reject him, but the company does.

He may wish to insure his wife's life because he is supported by an annual stipend, which she receives and which ceases with her death. He may reason, I have nothing except what I receive by her good grace, and I will insure her life for my own benefit, so that, in case of her death, I may have some support. That is a very plausible reason, and may lead to concealment of defects, which can be revealed only by the most careful examination. You must, therefore, investigate the motive which induces the man to insure the life of his wife. Furthermore, you should see that the sum for which he seeks insurance is somewhat in proportion to his circumstances in life. A case in point occurred not long since. An officer in the navy insured his life to the amount of fifteen thousand dollars, in different companies. The amount was so large that his annual income was not sufficient to pay the yearly dues.

There must have been an oversight, or neglect upon the part of the company, for there was no proper inducement for the man to insure his life for such an amount. For he had no young family for which provision was to be made, and his annual income was not sufficient to pay his living expenses and the premium. That man committed suicide within three years from the beginning of his insurance, and evidently for the sake of securing to his family a large amount of money. The company contested the claim, and eventually made a compromise. After having ascertained the motive for which the insurance is secured, you will take a general survey of the man. If he looks older than the age he has declared, you must make it a point for investigation. For he has either made a mistake in the declaration of his age, which will vitiate his insurance, or he has intentionally made a false statement for the purpose of diminishing the premium. If his statement is correct, and his appearance is much older than the age he claims, it is a bad life, for it is evidence of premature decay. On the other hand, if the applicant looks younger than the age he claims, it is a good life, and the probability of longevity is increased.

In the next place, his figure must be well-proportioned. He should not be an overgrown man; over six feet in height is objectionable. If he is undersized, he is also objectionable. If there is too much emaciation, it is objectionable, because it shows a deficiency in the nutritive powers of the body. Too much adipose tissue is equally objectionable. There must be a certain proportion between the height and weight of the person, if the normal relations have been preserved. Subjoined is a table showing what the weight should be for a given height, and to that I have added the circumference of the chest, measured just below the nipple. A man measuring less than five feet and an inch in height, is under size; hence below that no proportions have been given. Assuming, then, that the person is *thirty* years of age, and measures five feet and one inch, he should weigh one hundred and twenty pounds, and the circumference of the chest should be 34.06 inches.

TABLE.

Height.	Weight in Pounds.	Circumference of Chest in Inches.
5 feet 1 in.	120	34.06
5 " 2 "	125	35.13
5 " 3 "	130	35.70
5 " 4 "	135	36.26

Height.	Weight in Pounds.	Circumference of Chest in Inches.
5 feet 5 in	140	36.83
5 " 6 "	143	37.50
5 " 7 "	145	38.16
5 " 8 "	148	38.53
5 " 9 "	155	39 10
5 " 10 "	160	39.66
5 " 11 "	165	40.23
6 "	170	40.80

Now, in this table we have represented about the normal proportion a man should have at thirty years of age, and any great deviation from this calculation is objectionable. For example: if a man, five feet, ten inches in height, should be found to weigh only one hundred and twenty pounds, and measure thirty-four inches around his chest, he should be rejected. Any sudden loss or gain of fat is objectionable, unless it can be accounted for by some passing disease. I myself, on account of exposures upon the field after the second battle of Bull Run, suffered from a slight attack of typhoid fever, and rapidly lost forty pounds in weight; but I regained it just as rapidly, and do not regard it as in any way interfering with my longevity. But a sudden loss of weight, without apparent cause, is decidedly objectionable, and is usually the precursor of early death.

This subject will be continued at our next lecture.

Original Communications.

IS TYPHOID FEVER CONTAGIOUS?

By A. D. FELTON, M.D.,

SYRACUSE, NEW YORK.

While acting as physician to the Onondaga County Penitentiary, in the fall of 1876, I at one time had three convicts in the hospital sick with typhoid fever; one dying, the diagnosis in his case was verified by a post-mortem.

Wishing to test the contagiousness of air respired by typhoid patients, I confined three cats in a box of barely sufficient size to permit of their easily turning around. I now had these patients alternate in blowing through tubing into the box; this was repeated for ten minutes, three times a day, for three consecutive days, the box being nearly closed for ten minutes after the sick men had ceased blowing; subsequently the cats were allowed to run at large until again subjected to the operation. The division of the annexed table, devoted to "Penitentiary Experiment," shows the result. It will be noticed that for fifteen or twenty minutes the cats were confined in an atmosphere composed almost entirely of air which had passed through the lungs of the fever patients; at all other times their hygienic surroundings were good. The symptoms manifested were: lachrymation, decided dullness, increased temperature, anorexia, and a profuse diarrhœa —which are evidently some of the symptoms of typhoid fevers; yet I cannot say their illness *was* typhoid. But grant it was, and, it is asked, if typhoid fever may be contracted from the expirations of a fever patient, why do not those who nurse the sick more frequently contract the disease? I reply, the dilution of the respired air by the atmosphere of the room may be sufficient to deprive it of contagiousness; while if the nurse were confined in a concentrated fever atmosphere, as were the cats, he might as readily contract the disease. My labors may at least further impress the policy of good ventilation for the safety of those in charge of the sick.

Desiring to test the contagiousness of the excretions of typhoid patients, I secured several cats upon which to operate, and once a day, for four successive days, fed them half a teaspoonful of a solution of fecal matter.

The following table, arranged in the order in which I conducted the experiments, shows the result. When the same number appears the second time it indicates that that cat had been the subject of previous observation, and the figures under the head of "Sickness Commenced," "Convalescence," and "Death," indicate the number of days from the date of first eating of the matter until those several events took place. The symptoms of disease manifested more precisely the same as those of the cats used at the Penitentiary.

Penitentiary Experiment.

No.	Age of Cats.	Sickness Commenced.	Severity of Disease.	Convalescence Established.	Died.	Duration of Illness.
		Day.		Day.	Day.	Day.
1	Young..	3	Severe....	....	7	4
2	Old.....	5	Severe....	16	....	11
3	Old.....	12	Medium ..	23	....	11
	Fed on Recent Typhoid Fæces.					
4	Young...	2	Severe....	....	5	3
5	Old.....	2	Severe....	17	....	15
6	Old.....	0	.....	...	....	....
7	Old.....	0	.....	....	....	....
	Fed on Recent Typhoid Urine.					
8	Young...	0	.....	....	....	....
9	Young...	0	.....	....	....	....
	Fed on Putrid Typhoid Fæces.					
8	Young...	2	Medium .	11	....	9
10	Kitten..	4	Severe....	....	9	5
6	Old.....	7	Slight....	10	....	3
7	Old.....	10	Slight....	12	....	2
	Relapse after Eating once or twice of Putrid Typhoid Fæces.					
5	Old.....	3	Severe....	....	20	17
2	Old.....	6	Severe....	28	...	22
3	Old.....	3	Medium..	21	....	18
	Fed on Putrid Typhoid Urine.					
6	Old.....	0	.....	....	....	....
7	Old.....	0	.....	....	....	....
	Fed on Recent Healthy Fæces.					
11	Young...	4	.....	....	7	3
	Fed on Healthy Fæces Rendered Putrid.					
12	Kitten...	7	Severe....	....	13	6
13	Young...	7	Slight . ..	10	...	3

Reasoning from analogy, I supposed the cat could eat of healthy recent fæces with impunity, as the dog is known to do, and the unfortunate example in my experiments may have been the effect of a continued

fecal diet. Previous to the unlooked-for illness of the cat fed on recent healthy fæces, I flattered myself that I should arrive at some happy conclusion substantiating the "germ theory." But with the decease of that cat my ambition waned; and yet I take exception to her premature death, for the time of her sickness was during a period of elevated atmospheric temperature, when the room in which they were confined, although ventilated, became very offensive from the diarrhœic discharges of a dozen cats previously confined therein; to such an extent was this the case, that three convalescent cats suffered a relapse, and two, who up to this time had resisted all my efforts of communicating disease, were dumpish and refused their usual allowance of food, one having a slight diarrhœa. These symptoms lasted during the warm weather, or four days; in the meantime the cat fed on recent healthy fæces sickened and died.

Immediately following this death came the sickness of two cats fed on healthy fæces rendered putrid; but notice that they were longer in coming down and more rapidly recovered than those fed on typhoid matter; and yet there remains the fact of disease in three cats fed on healthy fæces. In all my experiments cats in good health and flesh only were used. I held a post-mortem in all cases of death, and never found any organic lesion of the intestines, but some of the mesenteric glands were swollen.

I am unable to discover whether the cat is possessed of the complements to Peyer's patches and the solitary glands; certainly I failed to find them; and I cannot say that any of these cats had typhoid fever, but I suspect that some of them had as much of the fever as it is possible for the feline to have. Sickness commenced and death followed more speedily than we are taught to expect it in typhoid fever, but the germs of disease were given by the spoonful, and needed not to wait for multiplication or fermentation, as perhaps they do in man.

Granting this disease to have been typhoid, it may not be unreasonable to conclude (the germ theory to the contrary) that while the fæces of typhoid patients are more active than those of a healthy person, yet that a sufficient quantity of healthy excretion taken into the stomach is capable of generating at least a mild enteric fever.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

FUNCTIONAL SUSPENSION OF THE SECRETORY OFFICE OF THE KIDNEY—IMPORTANT QUESTION RELATING THERETO.

A female patient had fallen into a condition in which she had passed little or no urine for a number of days, and yet from the examination of what could be obtained no evidence of organic disease of the kidney was found. The important question arose, namely, did uræmia ever occur as the result of suspension or diminution of the function of the kidney, irrespective of any organic disease of the organ? The question remained unanswered.

A HYPOTHETICAL CASE AND ITS TREATMENT.

Suppose that a patient was threatened with grave uræmic phenomena, or was actually suffering from the poison, and, at the time of the visit, was unconscious, and had had or was having convulsions, what would be the treatment? It was a practical question, and the fact that it received such a variety of answers induced noting down the plan of treatment recommended by an eminent visiting physician. "Do not answer," said he, "that you would give diuretics, for they are uncertain at best; they require considerable time to produce an effect, and the patient may, from the effect of the poison, die within a very short time."

The object of treatment was to eliminate the *materies morbi* from the blood, and the most effective method for accomplishing that was to act upon the alimentary canal. Give the patient a hydragogue cathartic, and the very best is elaterium. Croton oil might answer, but it was regarded as far inferior to the elaterium; besides, it was drastic. The skin could also be acted upon at the same time. "I am disposed," continued he, "for one, to believe that *opium* renders the system tolerant of this poison, and that it is useful, not only in forestalling the convulsions, but as a remedy for controlling them when developed." Nothing new, to be sure, but interesting as corroborative evidence, and doubly interesting because spoken by one who had arrived at such an opinion only slowly.

HEMIPLEGIA—QUESTION REGARDING DIAGNOSIS.

A female patient, æt. 31, had incomplete facial paralysis, with paralysis of the right side of the body pretty well marked, and slight rigidity of the muscles. There was aphasia. There was a specific history of two years' standing. The attack came on while she was sitting at a table writing; appeared without loss of consciousness, but with loss of power over the right side of the body; and she found that she was unable to speak. The question pertained to the cause of the hemiplegia. It might be due to thrombosis, or to embolism, or to cerebral hemorrhage. The question of cerebral hemorrhage might be objected to on account of the age of the patient, but it was to be noted that the woman had had syphilis for two years. There was no cardiac murmur, but it was believed that embolism was not necessarily excluded by reason of that fact, for a syphilitic patient without cardiac murmur might have either thrombosis or embolism. That statement was made in recollection of two cases. The first was one in which the history was almost identical with that given in the present instance. Close examination gave no evidence of cardiac murmur. The development of the paralysis was sudden; it involved the right side of the body, and was accompanied with aphasia. Autopsy, three weeks after, revealed embolism of middle cerebral artery, and the left auricle contained an old thrombus. The origin of the thrombus was believed to be in some previous fainting-fit, and hence it was regarded as proper to inquire whether such attacks had ever occurred. The woman before us had had fainting-fits which had been quite prolonged.

Just the reverse was seen in the second case. A woman under treatment for syphilis, who also had a double aortic murmur, suddenly became paralyzed upon the right side of the body without loss of consciousness, and she was supposed to have embolism. Autopsy, however, revealed neither embolism nor thrombosis, but hemorrhage just external to the left corpus striatum. From the suddenness of the attack in the case under observation, it was thought that the diagnosis was probably between embolism and cerebral hemorrhage, for thrombosis could be reasonably excluded. The rapidity of the recovery, it was thought would assist somewhat in solving the question; for, in embolism there was usually marked improvement

within a few days, whereas in cerebral hemorrhage the recovery went on slowly. In the present case the recovery had been slow; the case was one of nine weeks' standing, and the additional fact that cardiac murmur was absent led to the diagnosis of probable hemorrhage in the neighborhood and involving a part of the corpus striatum.

For the late rigidity upon the paralyzed side, galvanism was recommended for the flexor, and faradism for the extensor muscles.

SYCOSIS PARASITICA.

The case illustrated the importance of one item of treatment—namely, epilation. When the patient first presented himself the disease was in the pustular stage, and there was some difficulty in diagnosis. Two or three microscopical examinations of some of the hairs of the beard were made, and finally a parasitic growth was found which decided the nature of the disease. The affected parts were at once epilated, and a solution of sulphurous acid used to destroy the plant. The result was, that at the end of four or five weeks the face was almost entirely well. Before epilation was resorted to, a variety of treatment had been instituted, but without success. Latterly he had been using the simple litharge ointment. In cases in which there is a simple abrasion, the parasiticide might reach the plant without epilation; but when the parasite had formed its nidus in the depth of the hair-follicles, extraction of the hair was regarded as a necessity in order to reach the source of the evil.

Progress of Medical Science.

ON THE TREMBLING IN PARKINSON'S DISEASE (*Paralysis Agitans*).—M. Charcot, in a recent lecture on *paralysis agitans*, particularly insisted on the following points:

1. The name *paralysis agitans* is incorrect. The term *paralysis* cannot be properly applied to an affection in which the muscular power is preserved for a long time. The affix *agitans* is not absolutely correct, because the trembling is absent in some cases in which the correctness of the diagnosis cannot be questioned. He proposes to call the affection *Parkinson's disease*, after the English physician who first drew serious attention to it.

2. M. Charcot maintains that, as a rule, the head and neck do not take part in the tremor which affects the limbs and trunk. In those cases in which the head is observed to tremble, the oscillations are evidently communicated to it from the trunk. To prove this, he fastened a small stick, to the end of which a feather was attached, to the forehead of a patient. When the patient was left alone, the feather was in a state of unceasing agitation; but when the movements of the upper limbs were arrested in some way, as by forcibly elevating the arms and trunk, the feather was perfectly still. This experiment was tried with the same results on several patients.

3. M. Charcot laid particular stress on the fact that tremor is not a necessary symptom of Parkinson's disease. There is a form of the disease in which the tremor is so slight that it is not perceived by the patient, or in which it does not appear till after three or four years, or in which it is even entirely absent. M. Charcot gave in detail the histories of two cases in which all the symptoms of the affection were present and had attained considerable intensity, with the exception of the tremor. This was entirely absent in one of the cases, and in the other was confined to a slight trembling of the left hand, of which the patient himself was entirely unaware. Even this slight tremor was of recent development, while the other symptoms of the disease had existed for four years.

In some cases, in consequence of the stiff attitude of the patients, of the extreme slowness of the movements, the expression of hebetude, caused by the immobility of the features, the involuntary flow of saliva, and the interference with speech, the affection has been mistaken for softening of the brain. Usually when this error has been made, the rigidity was especially marked on one side. The intellectual faculties, however, remain intact in Parkinson's disease.—*Le Progrès Médical*, December 2, 1876.

A NEW CASE OF TENDINOUS SUTURE.—M. Duplay recently presented to the *Société de Chirurgie*, of Paris, a patient, aged 36 years, who, while holding in her hand a number of canes, fell in such a way that her thumb was caught under the canes. The thumb remained flexed on the palm of the hand, and she was utterly unable to extend it. Six weeks later she consulted M. Duplay, and he found that the long extensor of the thumb no longer acted. At the level of the depression between the tendons of the long and short extensor of the thumb, on the outer side of the wrist, he discovered a slight prominence, which appeared to be the upper extremity of the peripheral end of the tendon. The diagnosis of rupture of the tendon being made, he decided to unite the two ends by a suture. The other end of the tendon was found after a long and difficult dissection; but as the distance between the two ends measured from two to two and a half inches, even when the thumb was in a position of extreme extension, he decided to unite the lower end of the tendon with the tendon of the extensor carpi radialis longior. A button-hole opening was made in the latter, and the two tendons united by means of a metallic suture. The patient subsequently suffered from a phlegmon of the back of the hand, but finally made a good recovery, and can now make use of her thumb. The metallic suture did not come away till six weeks after the operation.

M. Tillaux remarked that cases in which anastomosis of tendons is produced are rare, but added that he had performed, in the preceding week, an operation similar to the one performed by M. Duplay.—*Le Mouvement Médical*, December 2, 1876.

INFLUENCE OF BACTERIA ON THE BLADDER AND THE URINE.—The following are the conclusions of a paper, by M. du Cazal, on "Chronic Cystitis complicated by the presence of Inferior Organisms in the Bladder:"

1. The alkaline transformation of the urine in the bladder may take place when bacteria are not present.

2. Bacteria can live and multiply in urine that continues to have an acid reaction, and which may be even more acid than normal urine.

3. When introduced into a healthy bladder, bacteria are evacuated after a temporary reproduction, without producing any alterations in the urine; on the other hand, when introduced into a bladder that is in a state of chronic suppuration, they become acclimatized and proliferate there almost indefinitely.

4. Finally, they may be present in large numbers in the bladder, and very probably in the kidneys also, for months and perhaps for years, without causing either local or general disturbances.

It is evident, then, that the very important rôle which

has been attributed to bacteria, in the causation of morbid phenomena of the genito-urinary system, does not properly belong to them. The day will probably come when it will be admitted that these elements play but a purely epiphenomenal and absolutely secondary rôle, at least in the domain of pathology.—*Gazette Hebdom. de Méd. et de Chir.*, November 24, 1876.

On the Action of Iron in Anæmia.—In the course of his researches on the blood of anæmic patients, M. Hayem has ascertained some facts supporting the opinion, that iron acts on the ultimate nutrition of the red globules. In health the number of globules contained in a cubic millimetre of blood, taken from the finger, is, on an average, about 5,500,000. When the anæmia is moderate in degree, the number of globules is about the same as in health; but they are altered in size, and contain less hæmoglobine. Thus, in one case, there were 5,352,000 globules in a cubic millimetre of blood; but the blood was not more colored than it would be with 2,500,000 healthy globules. Under the long-continued use of iron, the globules diminished in number, but they acquired their normal dimensions and became richer in hæmoglobine. The number diminished to 4,150,000, but they were equal in coloring power to 4,000,000 healthy globules. When the anæmia is extreme, the number of globules is diminished, *e. g.*, to 2,500,000. Under the use of iron a number of new, small, pale red globules first appear, and then the blood undergoes the same changes as in an anæmia of moderate intensity, so that when a cure is effected the globules are individually physiological, but are less numerous than at certain periods of the disease.

In the anæmia of fatal cachexias the blood contains globules larger than those of normal blood. When the anæmia becomes extreme, the number of these hypertrophied elements increases, and, in spite of the presence of very small elements, the average dimensions of the globules vary less from the normal than in less intense anæmias. The number of red globules then decreases daily, and iron can no longer arrest the progress of the change. Nevertheless, even then iron may cause the globules to take up hæmoglobine, and the hypertrophied elements may even possess more coloring power than healthy globules. In one case the blood contained only 414,062 globules per cubic millimetre; but the average value of each globule was 1.34.—*Gazette Médicale de Paris*, December 9, 1876.

Obesity and Amenorrhœa of Young Women Cured by Milk Diet.—M. Tarnier was consulted, some time ago, by a young woman who was suffering from albuminuria. She was very fat, and had not menstruated for several months. He ordered only the rigorous employment of a milk diet. Some months later he saw her again, and was surprised to find her quite slender in form, and presenting all the appearances of health. She had followed his directions to the letter, and the amelioration of her symptoms had been rapid. First the albumen disappeared from the urine, and then the precocious obesity disappeared. Menstruation was gradually re-established as she grew thin, and her periods had begun to occur at normal intervals.

Shortly afterwards M. Tarnier ordered milk diet to a young woman who was very obese, and in whom there was absolute suppression of the menses. She had no albuminuria. The patient lost flesh rapidly, and menstruation was perfectly re-established. These cases possess much practical interest. Milk diet must be classed among the alterative medications, but it has the advantage of being well borne by the stomach and of not disturbing the general health. In treating albuminuria with milk, M. Tarnier orders, for the first day, one quart of milk with two portions of food; for the second day, two quarts of milk and one portion of food; for the third day, three quarts of milk and one portion of food; for the fourth day and afterwards, four quarts of milk and no food at all. In the treatment of obesity it is not necessary to adhere so rigorously to the milk diet; a small quantity of the ordinary food may be allowed. The patient may take the milk in such quantities and at such times as she likes, provided she takes the prescribed quantity per diem. The duration of the treatment will vary in different cases. If diarrhœa set in, it is a sign the treatment is not well borne. When the desired effect begins to show itself, it continues even after the treatment is suspended.—*Journal de Méd. et de Chir.*, vol. 47. 1876.

Spasmodic Ileus in Hysteria.—There are several cases on record which prove that a spasmodic contraction of the intestines giving rise to the same symptoms as strangulation from an organic cause, may be produced under the influence of hysteria. At a recent meeting of the *Société de Médicine de Paris*, M. Auguste Voisin reported the case of a young, hysterical girl, in whom three attacks of this sort had occurred. The two first attacks were relieved by anti-spasmodics and purgatives, but the third one proved fatal. The autopsy revealed traces of a purely spasmodic stricture of the intestine. M. Voisin also related the history of a woman, who suffered from analogous symptons, but in whom, with the exception of a certain *impressionability*, no trace of hysteria or of any other disease could be discovered. She complained chiefly of tympanites, which had become so extreme that it interfered a good deal with respiration; at the same time there was constipation and obstinate vomiting. This condition of affairs had lasted for several days, and was becoming more and more aggravated. The absence of any affection, that could cause a mechanical or organic stricture of the intestine, led M. Voisin to suspect the existence of a simple spasm. He introduced an œsophageal catheter into the rectum, and discovered, some distance up, a stricture that he succeeded in passing; a large quantity of perfectly inodorous gas at once escaped through the catheter. This catheterization was repeated several days in succession, and the patient was completely cured.—*Gazette Médicale de Paris*, December 16, 1876.

Treatment of Spasm of the Glottis.—The attacks of spasm of the glottis are much more violent than those of false croup, being accompanied by contraction of the muscles of respiration, especially of the diaphragm, and sometimes even by general convulsions. In the treatment of this affection there is rarely time to employ the various methods mentioned in the books, such as electricity, frictions, chloroform, etc., and consequently the plan proposed by M. Charon seems to be all the more practical. This physician states that inhalations of ammonia rarely fail to cut short the attack. He advises mothers, who have children subject to attacks of spasm of the glottis, always to carry a bottle of ammonia with them. He cites the case of the wife of a physician, who followed this advice, and whose child always rapidly recovered from the spasm with the help of the ammonia. Unfortunately, one day she did not have her flask with her, and while she was looking for it the child died asphyxiated.—*Journal de Méd. et de Chir.*, vol. 47, 1876.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE CLIMATE OF NASSAU.

THE therapeutical effects of climate have become a matter of increasing interest and study. It is of no small importance that the physician should have reliable data upon which to base an opinion as to the probable influence the climate, etc., of any locality is likely to exert upon his patients. Too often the only statistics and reports to be had are those furnished by non-professional and interested persons.

The MEDICAL RECORD will, during the present year, send commissions to various so-called watering-places and resorts of invalids and pleasure-seekers, both in winter and in summer, whose reports will, we believe, be found of interest and value to our readers.

There are very few easily accessible places where a really dry and warm winter climate may be enjoyed. The sanitaria of our Atlantic Coast and of the West Indies are all more or less humid. Other influences characterize particularly the resorts in Florida, which detract from their comfort as winter residences. Cold north-easterly winds, laden with moisture, and even frost, may surprise the northern sojourner in most parts of Florida during any of the winter months, and unpleasantly remind one of the lack of home comforts and protection against bad weather.

It is only recently that the attention of the public has been directed to a locality now easily accessible, where violent or even moderate fluctuations of the temperature are rare, and frost is never known.

The Bahama Islands, lying entirely to the eastward of the Gulf Stream, have a range of 550 miles, from northwest to southeast, north latitude 20° 55′ to 27° 31′, and west longitude 72° 40′ to 79° 05′. Some of the islands possess unusual interest to the historian and to the naturalist, but it is chiefly of New Providence and the capital city of the group upon it, Nassau, that we shall speak, and of its claims as a winter residence for the invalid and pleasure-seeker. It lies in latitude 25° 5′ north, and longitude 77° 20′ west. It is of small extent, being about seventeen miles long by seven wide, with an area of eighty-five square miles; but little of it is cultivated, the surface being thickly covered with a luxuriant, semi-tropical vegetation, great patches of the prickly pear (*Opuntia vulgaris*), fields of cabbage palm (*Areca*), guinea grass, bushes of coco plums, guylandina, etc., etc., matted and tangled together by several species of vines, with here and there groups of larger trees. There is quite a forest of pines—the *Pinus Bahamiensis*—in the middle of the island; and here, as elsewhere, the visitor is astonished at the immense number of orchids—mostly varieties of epiphytes—which cling to the branches. The botanist from the States may revel in a new flora, with hardly a familiar species to remind him of home. The invalid accustomed to the cypress and oak, and the festoons of hanging moss of Florida, will find none of these, but in their stead the stately cocoa-nut, the tamarind, the strangely rooted silk cotton tree, the royal palm, the banyan, the bread-fruit, great rows of the sea-grape on the shores. Aloes (Agave Americana) along the roadside, with their curiously formed shuttlecock-like young plants dropping twenty to thirty feet from their tall flower-stalks, immense tree-like cacti—masses of the night-blooming cereus, like great serpents, hanging over walls, and numbers of other strange and new forms of plant-life. Oranges, lemons, and bananas abound, together with a great variety of other fruit.

This Island, as all the others of the group, is of coral origin; the limestone rock, which in some places rises to a height of sixty to ninety feet, is composed entirely of comminuted coral shells and other recent marine formations. It is quite soft and easily worked when first cut, but soon becomes hard and brittle on exposure to the air. The soil covering it is very thin; and in many places the rock is quite bare, but its surface is completely honey-combed. The vegetable mould has washed into these water-worn holes and supplies ample nourishment to the vegetation upon it.

There are no running streams whatever. In a few places the sea ebbs and flows a short distance inland, as it does also in a number of ditches cut by the government. These latter drain parts of Nassau which lie beyond the elevated portion upon which the city is chiefly built. There are two considerable lakes on the island, one at least of which is affected by the ocean tides and has brackish water. The water of the other and larger is sweet.

The drinking water is of two kinds—that from reservoirs, being stored rain-water collected from the roofs of the houses, and that from wells. The former only is generally used by the well-to-do white population, exclusively so at the hotel, and is an unusually good potable water. The well water is not safe for drinking purposes, and should not be used by visitors;

t is rain-water which has filtered from the surface and rests upon the sea-water, which appears to penetrate the porous rock everywhere. The depths of these wells obviously depend entirely upon the elevation of the ground above the sea—the body of fresh water being always found at the same level. The influence of the tides is more or less perceptible in these wells, and some of them are slightly brackish. A much more dangerous source of contamination to them, however, than the sea-water exists in the sinks and cesspools of the city, dug in the same rock, which permits portions of their contents to penetrate to the level of the water and mix with it.

The surface drainage of the city is excellent. Water soon disappears, either through the gutters cut in the stone—which, by the way, are very good—at the roadside or by percolation. It would hardly be possible to find a stagnant pool of any kind. The streets are very neat, and as both the narrow sidewalks and the carriage-ways, are cut on the native rock, and are equally hard and clean, it is more customary to walk on the latter than the former. All the roads throughout the island are of the same character, constructed by the government and kept in repair by convict labor. There is no dust.

The mean temperature during the winter months is somewhat higher than at other health resorts, as is shown by the following comparisons:

Place.	Nov.	Dec.	Jan.	Feb.	Mar.	April
Nassau, N. P.	76.8	73.6	73.6	75.7	75.4	76.1
Savannah, Ga.	58.6	51.5	52.2	54.5	60.4	67.7
Jacksonville, Fla.	64.1	54.2	56.4	56.1	64.2	67.8
St. Augustine, Fla.	64.1	57.2	57.0	59.9	63.3	68.8
Pilatka, Fla.	61.5	56.0	57.2	58.3	64.1	71.2
San Diego, Cal.	56.9	51.7	51.9	53.3	56.0	61.2

But the average mean temperature of a month may be quite deceptive. It is the diurnal and from day to day fluctuations which are of the greatest importance and have the most influence upon the health of invalids. In this particular Nassau has an advantage over any locality on the Atlantic side of the continent.

No other place we know of, so well fulfils the requirements of a winter sanitarium in this respect as Nassau, and had it also the dryness of some other resorts not so favored as to warmth, it would indeed be a very Utopia for consumptives. But while there is less moisture in suspension than in some other places which claim dry atmospheres, it has nevertheless a humid climate. Indeed it could hardly be otherwise from its situation. There is but a short twilight at the end of the day. The sudden withdrawal of the sun's rays cause an immediate and profuse dew-fall for an hour or two after sunset. The equilibrium is then restored, and there is afterwards little or no danger from exposure to the night air.

Phthisis exists to some extent among the natives and residents. The Island is very free from malarial diseases. Such forms of intermittent and remittent fever as exist yield readily to treatment.

The following is the Thermometric Record taken at the Royal Victoria Hotel, during the season of 1874–75. *It shows the daily average of three observations taken at* 6 A.M., 12 M., *and* 6 P.M.

	1874.		1875.			
Day of Month.	Nov.	Dec.	Jan.	Feb.	March.	April.
1	78⅔	75	73⅔	77	76	78
2	78⅔	74⅔	74	77	76	76⅓
3	81	74⅔	73⅓	71⅓	76⅓	77
4	80⅔	74⅓	74	72	76	73⅓
5	80⅓	74⅔	74⅓	71⅓	75⅔	74
6	81⅓	75⅓	74	70⅔	76⅔	73⅓
7	81⅓	74⅔	74	71	76⅔	74
8	80⅔	74	74	70⅔	73⅓	75
9	80⅔	72⅔	74	67⅔	72⅔	75⅔
10	76⅓	73⅓	74	70	72	76
11	78⅓	73⅓	74	73	74	77⅓
12	78⅓	73⅓	74⅓	71⅓	73⅓	79⅔
13	75⅔	73⅓	74	73	76	80
14	72	74	74	73⅔	77⅔	77⅔
15	73⅓	72⅔	71⅔	73⅔	77	73⅓
16	72⅓	71⅓	72⅔	72⅓	78	74
17	73⅓	71	71⅓	72⅔	76	75⅔
18	75⅓	71⅓	71⅔	74	72⅔	74
19	68	72	71⅔	74⅔	75⅔	73⅔
20	67	73⅓	70	76⅔	78⅔	77⅓
21	70⅔	71⅓	71⅓	79	77⅓	76
22	73⅓	72	72⅔	77⅓	76	76⅓
23	75	73	74	76	79⅓	75⅔
24	76	74	74⅓	77⅓	71⅓	75⅔
25	77⅓	74⅔	73⅓	76	73	74⅓
26	75	74⅓	73⅓	75⅔	74⅓	77
27	78⅔	75⅓	72	75⅓	74	79⅔
28	77	74⅔	73⅓	73⅔	75⅔	77⅔
29	78⅓	74⅔	73⅓	—	75⅔	76⅔
30	78	74⅔	74	—	75⅔	77⅔
31	—	74⅔	74	—	75⅓	—

There are a limited number of private families with whom good board may be obtained. Visitors will generally do best by going at once to the Hotel. This is a fine three-storied stone building on high ground, built in a substantial and thorough manner at government expense, and leased at a merely nominal rent, upon condition that the proprietors shall keep a first-class house in the American style. The chambers are very clean, having painted walls, bare floors, rugs at the bedside, etc., windows opening to the floor, with ventilators above them, as also above the doors.

The Royal Victoria Hotel is perhaps superior to any in the South in its hygienic appointments, and is equalled by few anywhere. Its table is supplied with excellent food, well prepared.

To briefly recapitulate:—From November to April Nassau has a warm and remarkably equable climate.

It has a moderate degree of humidity.

Its surface is well covered with vegetation.

Its drainage, chiefly by subsidence into the rock, is good.

Its stored drinking water is ample in supply, and healthful.

It is quite free from malarious and other endemic diseases.

Among those diseases likely to be favorably influenced by a residence in Nassau during the months indicated, are phthisis in its incipient stages, especially when accompanied by nervous excitability; bronchitis; some cases of laryngeal and pharyngeal catarrh; spasmodic and intermittent forms of asthma; neuralgia and rheumatism; and others which will readily suggest themselves.

DEATHS FROM CHLOROFORM.

The discussion of the relations of chloroform to dentistry is not apt to lose interest for the want of new facts bearing upon it. With the recent Rahway tragedy still fresh in our minds, we are called upon to record another victim to the administration of chloroform, while in a dentist's chair. In this instance the case was that of the wife of a prominent citizen, of Rock Island, Iowa. As far as we can learn from the report furnished us, every precaution, save allowing the patient to sit in the chair, was taken to guard against the accident. The gentlemen who administered the anæsthetic was an experienced physician, and had performed a similar service to the patient before. Death appeared to be instantaneous from paralysis of the heart. If it were necessary to prove the dangerous character of chloroform as an anæsthetic in dentistry, we could hardly select a more direct case in point than the one under consideration. In the Rahway case the patient had a full stomach at the time of the accident, and there were other circumstances which more or less directly invited the issue: but in the Rock Island case there would seem to have been every chance for escape, except for the fact, that the chloroform was given for tooth drawing, and the patient was at the time on the dentist's chair. In this connection we must refer to still another death from chloroform, occurring as an accompaniment of an equally trifling operation. The account has just reached us in the *British Medical Journal*, January 20, 1877, of the sudden demise of a male patient, aged thirty-seven years, at the University College Hospital, while under the anæsthetic. The operation which called for its administration was the extraction of a small piece of dead bone from the stump of an arm. The patient was lying on the bed, and the chloroform was given *secundum artem*. He became suddenly unconscious, and when the dead bone was grasped, breathing ceased at once. In this instance also all the usual methods of resuscitation failed. At the autopsy fatty degeneration of the heart was discovered. Of course the latter condition explained the cause of death, but inasmuch as the man had taken ether before without any bad symptoms, the result has a very significant bearing upon the great dangers of chloroform. If these and similar experiences serve as nothing more than new and forcible illustrations of old and acknowledged facts, a particular reference to them will not be in vain.

A STATE BOARD OF HEALTH FOR NEW YORK.

Mr. Gulick, member of Assembly, has introduced a bill for the creation of a State Board of Health. It provides for the appointment of one medical man from the State Medical Society, and one from the State Homœopathic Medical Society. The Board is to be further constituted as follows: Attorney General of the State, Surgeon General, State Engineer, Superintendent of Public Works, and Superintendent of State Prisons. Although there is a great show of justice in the appointments and purposes of this bill, it is evidently a partisan measure in the interests of homœopathy, and should not receive the countenance either of the State Society or of the profession generally. We want a State Board of Health, but not such an one as this. As the bill is before the Committee of Public Health, it may be well for some of the influential medical men throughout the State to bestir themselves for its defeat.

WHEN DOCTORS DISAGREE.

Libel suits of laymen against members of the medical profession are by no means novelties; but the results have not recently been such as to console the supposed-to-be-aggrieved plaintiff for the expense and annoyance of his own litigation. Libel suits of medical men against one another do not so often find their way into the courts. A case of this nature has, however, occupied the attention and elicited the interest of the profession of Philadelphia within a week or two past. The plaintiff—whose name, by the way, we seek in vain in the latest medical directory of that city—was originally a graduate of a highly reputable medical institution, but became officially connected with a school for the manufacture of graduates in medicine, whose students are not on the *ad eundem* list of either of the recognized medical centres of that city. He became medical examiner of a life-insurance company, but was displaced, as he alleges, on account of a letter describing him as an old quack or words to that effect, written by a medical gentleman of excellent professional standing, who was a policy-holder in the same company. This is the central point of the libel, and, the plaintiff contends, ample ground for conviction. The judge seems, in his charge, to have avoided discussing the issue whether the plaintiff was or was not an old quack, or whether the defendant had a right to call him such, even if he thought or knew him to be one of the deepest dye, but wisely, perhaps, declared that a communication thus written by a policy-holder to a director was privileged, and in the interests of the company, which might materially suffer if the medical examinations were not skilfully and properly conducted. The jury seems to have been undecided, for the result was a disagreement on the verdict. It therefore remains an open question, in our ignorance of the motives of action of this duodecemvirate, whether some of these

gentlemen may not have taken sides with the defendant that the plaintiff was really an old quack, or whether they may not have fallen into the popular error of belief, so fatal to the health and safety of thousands, that one man (with M.D. appended) is as good as another with the same appendage, whether he be a young or old quack, an advertising, unskilled charlatan, or an educated, high-toned professional gentleman.

ASYLUM ABUSES.

Our attention has been called by Dr. R. L. Parsons, Medical Superintendent of the New York Lunatic Asylum, to some statements in a recent editorial, which he has reason to believe reflect upon his professional competency, and upon his ability to discharge his managerial duties.

We take pleasure, not only in disavowing any such intentions, but in bearing testimony to his fidelity as a manager, and to his earnest advocacy of all the necessary reforms. Our remarks were intended more for a general than a particular application. Although many of the abuses, particularly those of over-crowding, exist in his asylum, we are aware that he has repeatedly and earnestly protested against them. As regards the good quality and sufficient quantity of food furnished his patients, we are happy to say that we can bear equally good testimony.

Reviews and Notices of Books.

On Coughs, Consumption, and Diet in Disease By Horace Dobell, M.D., F.R.M.C.S., etc. Consulting Physician to the Royal Hospital for Diseases of the Chest, London, etc., etc. Philadelphia: D. G. Brinton, 115 S. Seventh St. 1877.

This volume, containing 216 pages, is divided into three parts. Part first is devoted to the diagnosis of bronchial and pulmonary diseases, and contains eight chapters, in which are considered the systematic examination of the chest; the diagnosis of early phthisis; the value of cavernous sounds; the importance of hæmoptysis as a symptom; winter coughs, under which head the special relation existing between bronchitis and emphysema are studied; diagnosis of narrowed air-passages; post-nasal catarrh, which is well described; ear-cough, which is worthy of recollection; and the natural course of neglected cough. In the second part the treatment of coughs, colds, and consumption is considered. The pathological conditions present in winter-cough, the early treatment of catarrh, the avoidance of colds, the therapeutic resources in coughs, the treatment of post-nasal catarrh, and the management of consumption, are taken up in regular order. In this as in the first part we have failed to notice anything specially novel, but old things are rendered new by a concise and easy style of writing.

Part third is consumed in presenting the principles of diet in disease; and here we have laid down general rules for diet in sickness, diet-list for consumptives and diabetics, special recipes for medical food, and remarks regarding the use of nutritive enemata in disease. The book is well printed, and contains many valuable suggestions.

The Electric Bath; its Medical Uses, Effects, and Appliance. By George M. Schweig, M.D., Member of the New York County Medical Society, etc. New York. G. P. Putnam's Sons, 182 Fifth Avenue. 1877.

Dr. Schweig, in his monograph, has set forth the claims of a new therapeutical measure, and in so doing has exhibited a commendable modesty in not regarding it as a panacea for all the ills to which human flesh is heir. He has described his method of using the electric bath; has mentioned the conditions, as far as his experience has extended, in which it is most available; has detailed the results obtained, and asks the profession to give it a trial. The advantages claimed by him for the electric bath are a more efficient and ready method of general electrization, at the same time that the electric current is under perfect control. The opinion that such benefits can be obtained by other means does not invalidate against the claims of the bath as one of the most valuable of therapeutic agents. In fact its convenience of application, its certainty of operation, and the promptness of its effects, would seem to render it superior to the ordinary methods of general electrization generally employed by the profession. The work is carefully written, and is calculated to create a new interest in the treatment of many diseases heretofore considered intractable.

Transactions of the New Hampshire Medical Society (eighty-sixth anniversary), held at Concord, June 20 and 21, 1876. Concord: Charles C. Pearson & Co., Printers. 1876.

The volume contains the minutes of the proceedings, addresses, reports upon various medical subjects, and obituary notices. The cover of the book is devoid of all pretension, and its contents are, in more respects than one, interesting. Some of the papers give evidence of care in their preparation.

The Use and Value of Arsenic in the Treatment of Diseases of the Skin. By L. Duncan Bulkley, A.M., M.D., Physician to the Skin Department, Demilt Dispensary, New York; Fellow of the New York Academy of Medicine, etc., etc. New York: D. Appleton & Company, 549 and 551 Broadway. 1876.

This essay is a reprint from Transactions of the American Medical Association for 1876, and contains a very clever statement of the author's experience in the use of arsenic in the treatment of cutaneous diseases, together with a *résumé* of the literature of the subject. It is concluded that arsenic possesses a certain value in the treatment of psoriasis, eczema, pemphigus, acne, and lichen, when proper cases are selected and the remedy is supported by a proper general treatment; that it has a less certain value in lupus, ichthyosis, sycosis, verruca, and epitheliomatous and cancerous diseases; and that it is absolutely useless or harmful in the remainder of the tegumentary group. Dr. Bulkley has administered arsenic in comparatively large quantities to young children suffering from eczema, and with surprisingly good results. To a patient eighteen months old, suffering from eczema, he has given as high as five drops of Fowler's solution thrice daily, commencing with small doses, and with the happiest results. The essay is a valuable contribution regarding the remedial power of arsenic in the treatment of skin diseases.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Jan. 10, 1877.

Dr. Chas. K. Briddon, President, in the Chair.

ANEURISMAL TUMOR OF THE LEG.

Dr. Sands presented a specimen of aneurismal tumor of the leg, which was especially interesting on account of the obscurity which attended the diagnosis of the disease. The patient came under his notice in Roosevelt Hospital on the 17th of December last. He was forty-six years of age, spare in habit, in somewhat feeble health, and the subject not only of surgical disease, but of albuminuria. He had been an inmate of the Bellevue and St. Luke's Hospitals previously for a tumor of the right leg. It had been regarded as a sarcoma, but there was some doubts regarding its nature, and, although the operation of amputation had been proposed from time to time, the patient would not give his consent to its performance. Fourteen years previously, he had been treated for a popliteal aneurism by means of compression of the femoral artery. This treatment was continued for nine weeks, with the result, as was supposed, of curing his disease.

About three months subsequent to the supposed cure, another tumor developed in the popliteal space a short distance below the seat of the previous tumor. This tumor, the man stated, was hard, painless, and at first freely movable. The swelling increased in size from year to year, the average increase being one and a half inches in circumference. Two years before he entered the Roosevelt Hospital he was attacked with what appeared to him to be an inflammation of the tumor, and with which he was confined to his bed for a fortnight. Ten days before his admission he had a chill, followed by a fever, with pain and increase of size of the tumor. When he entered the hospital he was so poorly that a critical examination of the leg was deferred. His temperature was 103° F., and from this time until his death it was always above the normal standard.

On December 11, four days after he had sufficiently improved to allow the necessary examination, a tumor of large size was found on the posterior or inner aspect of the upper two-thirds of the leg. Below it was found to rise very abruptly from the surface—for instance, five inches above the ankle; the circumference of the leg was five inches, while six and a half inches above the ankle the tumor measured nineteen and a half inches around.

Its greatest dimension was at the junction of the middle and upper thirds of the leg, where it was twenty-three and a half inches in circumference. From above this point it lost itself in a diffused swelling of the lower portion of the thigh. The tumor appeared to be very firm. It was for the most part smooth, hard, and then lobulated, the elevations being of considerable size. The skin over the tumor was somewhat inflamed, but otherwise healthy. On the inner lower fourth of the thigh, a point of fluctuation was found, accompanied by pulsation. Applying the stethoscope over this region, a single murmur was heard synchronous with the first sound of the heart, and resembling closely the murmur of aneurismal disease.

The history of the case caused Dr. S. to incline to the belief that the disease was aneurismal in character. This suspicion was strengthened by the presence of pulsation and murmur; on the other hand, the long duration of the disease, the great prominence of the tumor, and the solidity of a greater portion of it, pointed to different conclusions.

December 18, eleven days after his admission, the tumor broke in two places posteriorly. On the day following there was a discharge of a large quantity of chocolate-colored fluid resembling grumous blood. This was examined microscopically, and found to contain blood discs, and a large number of corpuscles the nature of which was not determined, on account of fatty change. Solid masses were also observed, which looked like changed blood clots. Coincident with the discharge, there was a subsidence of the swelling.

Thirteen days after admission, and two days after the rupture, amputation was performed. The operation was attempted through the condyles of the femur, close to the knee; but in so doing, the knife traversed a sac which had to be dissected up, thus making the flaps shorter than was at first intended. The man did poorly after the operation. He was not uncomfortable for several days, but he had a high temperature and a high pulse. On the fifth day he was seized with pyæmia, of which he died thirteen days after the amputation.

The autopsy, made by Dr. Delafield, discovered infarctions in both lungs, and on examination of the veins there were found coagula, extending at intervals up to the point where the larger vein is joined by the saphena magna, which latter was filled with yellow thrombi. In this connection it may be stated that, in securing the vessels of the stump, it was necessary to include the femoral vein in the same ligature for the femoral artery. Dr. Abbe made a careful examination of the tumor. As near as it can be discovered, the growth has the characters of an aneurism deeply seated in the muscles of the calf. In its upper portion the sac contained a nearly spherical mass, which seemed to be free except posteriorly, where it is pretty closely attached to the aponeurotic fascia. The solid mass was found by Dr. Delafield to consist of deposited fibrine, no tumor tissue being discovered. The artery in the line of dissection, as made, was found to be obliterated and filled with a well-marked plug of fibrine. Higher up, where a section was made a second time, the artery was pervious.

It was interesting to ascertain whether there was any communication of this sac with the circulating arterial vessels. An injection of tallow and vermilion was accordingly pushed into the anterior tibial artery; although by this means the vessels of the leg were pretty thoroughly filled, none of the injection escaped into the sac. There was, then, no reason to believe that there was any communication between the sac and the vessels below the occlusion. Whether there was any articulating or other branch arising above this point, and communicating with the tumor, could not be determined.

The interesting points in connection with this case referred to diagnosis. It was one of those cases in which it seemed almost impossible to make a diagnosis before rupture appeared. Dr. Markoe, who saw the case, thought, with Dr. Sands, that the weight of opinion was in favor of aneurism rather than a tumor proper. It was, however, a mystery why the pulsation, and especially a murmur, should have existed, assuming at the time that there was no direct communication between the artery and the sac. The pulsation and murmur were detected on the 11th, and con-

tinued up to the time of the rupture of the tumor, when both disappeared. The point of fluctuation and murmur did not lie over the artery, and, even granting that the pulsation might have been simply communicated to the contents of the sac, it was still difficult to explain the murmur without supposing a direct communication between the artery and the sac. In conclusion, Dr. Sands expressed the opinion that the disease was a slow-growing aneurism which had suppurated at the same time that the communication with the artery had become obliterated.

PERFORATING FRACTURE OF THE ACETABULUM.

Dr. Sands presented a second specimen, with the following history: He was asked by Dr. Levings to see a gentleman, æt. 66 years, who had fallen in a dumb-waiter well, on Thursday previous. When Dr. L. was called, the patient was suffering so severely from shock that a thorough examination was not advisable; still he entertained the suspicion of the existence of a fracture of the neck of the femur. Within twelve hours after the accident the patient began to vomit at short intervals. This symptom continued until his death. Dr. S. was asked to see the patient on account of the vomiting, which was suspected, although not believed, might depend upon a hernial swelling on the left groin. The patient was ruptured on the right side, and had worn a double truss of his own invention for many years. When Dr. S. saw the patient forty-eight hours after the injury, he noted the facts already observed by Dr. Levings, viz., that the limb was not shortened nor everted, and that the heel could be elevated; he did not make a very careful examination of the hip. He agreed with Dr. L. that no fracture existed. Besides the points already noted, the limb was capable of free rotary motion; there was no crepitus, and the trochanter described the arc of a circle. The right groin showed no traces of hernia. In the left groin there was a movable tumor, two inches in length and an inch in breadth, situated below Poupart's ligament, just over the saphenous opening and possibly a little external to the vessels. Although it had the seat of femoral hernia, it was soft and painless on pressure, and received no impulse on coughing. The patient assured both Drs. Levings and Sands that the particular tumor had existed for twenty years. The abdomen was carefully examined. It was slightly swollen, but no evidences of internal tumor were found. The vomited material consisted of mucus and bile. The pulse was slightly accelerated, and the temperature a fraction over 98° F. On Sunday, the third day after the injury, the pulse increased, and continued to do so, as did also the temperature. Associated with these symptoms were tympanites and other evidences of peritonitis. The diagnosis was traumatic peritonitis. This opinion was strengthened by the subsequent passage per anum of decomposed blood.

The treatment consisted of opium internally, and fomentations externally. January 10th he was suddenly seized with collapse, and died the day following.

The autopsy was made by the Coroner's assistant, and Dr. Levings obtained the specimen. The tumor of the groin was found to be composed of adipose tissue merely. This traumatic peritonitis was discovered to be caused by an extensive fracture of the pelvis, associated with the penetration into its cavity of the head of the femur, through its acetabulum. After the caput femoris had been buttoned through in this manner, it afterwards had allowed the limb to maintain its relatively normal position with the hip proper.

LARYNGEAL DIPHTHERIA.

Dr. Delafield exhibited a specimen, taken from the body of a man, forty-five years of age, who was admitted to the Roosevelt Hospital January 8, and who died on the evening of the day following. His history was, that for eight years he had suffered from a cough, attended with loss of strength and emaciation. The cough had been worse than before for some months, and the expectoration was steadily increasing. The day before his admission he had a slight hemoptysis for the first time. Except for this history, and the additional statement that he had several attacks of rheumatism, nothing more could be learned. At the time of his admission he was a good deal prostrated. His temperature was normal, his pulse 100, and his respiration accelerated. His breath was offensive, and was suggestive of gangrene of the lung. After his admission he grew rapidly worse; his pulse became more and more frequent and more and more feeble, his breathing more and more rapid, and there were heard moist râles over both lungs. His skin was covered with perspiration, and he finally died in this prostrated condition.

At the autopsy both lungs were attached to the chest wall. Both were subject to emphysema as well as pneumonia. The trachea and all the larger bronchi were intensely congested and covered with a deposit similar to that seen in laryngeal diphtheria. The upper portions of the larynx and pharynx were not involved. Dr. Delafield remarked that such a condition of diphtheritic deposit could hardly be made out before death.

Dr. Lewis Smith presented the heart and lungs, with trachea and larynx attached, removed from an infant, who died at the age of seven months, in the New York Infant Asylum. He remarked, in passing, that the case to which the specimens belonged was interesting, in connection with the one just related, inasmuch as in the Asylum which adjoined the Hospital there had been no diphtheria, with the exception to be presented, for over six months.

The infant was bottle fed, and was admitted in the beginning of December. Throughout the month it had suffered from some cough, and on Christmas a thorough examination recognized the existence of bronchitis. A mixture of carb. ammon. and citrate of iron was prescribed and an oil-silk jacket ordered. On January 1 the little patient was seized with a harsh cough and dyspnœa, which latter soon became extreme. Twelve hours after the attack the temperature was 100½° F., pulse 164, and respiration 44. There was no fibrinous exudation in the fauces, only a moderate redness of the faucial ring, and it was somewhat puzzling to account for the dyspnœa. At first, in the absence of a more reasonble explanation, it was thought that the long sickness of the child had induced suppuration of the bronchial glands, and that one of these had burst into the trachea, or that a gland had suddenly increased in size and was pressing against the trachea or lower part of the larynx. There was not therefore a clear diagnosis. Finally, it was suggested that it was a case of diphtheritic laryngitis, which it proved to be. Death occurred at the end of the third day after the appearance of the grave symptoms.

THE DISTINCTION BETWEEN DIPHTHERITIC AND CROUPOUS MEMBRANES.

Dr. Heitzmann, who examined the specimens, found catarrhal pneumonia in the upper lobe of right lung and lower lobe of left lung, and a glazed diphtheritic deposit over the surfaces of the larynx and trachea, the

latter condition being associated with the former rather as an effect than as a cause; at least it was merely coincident.

Dr. Beverley Robinson could not understand why such a conclusion could be reached in this case. What was the distinction between croupous and diphtheritic exudation?

Clinically speaking, it amounted to little more than a knowledge of the fact that if croupous, the membrane when removed did not reappear within four or five days, and in diphtheria the deposit formed with greater rapidity. Further, in cases of true diphtheria the patients were apt to die, and in croupous exudation they tended to recover.

Dr. Heitzmann remarked that deposits occurring on the surface of the membrane were called croupous, while those which penetrated the substance of said membrane, causing ulceration, were styled diphtheritic.

Dr. Satterthwaite had been unable to make out any such distinctions. He believed that the mere penetration of the deposit on the substance of the membrane was more the result of age than of a distinct pathological condition.

Dr. Lewis Smith was of the opinion that non-diphtheritic croup was very rare. For the past six or seven years he had seen very little croup which did not become diphtheritic, and consequently contagious.

The Society then went into executive session.

NEW YORK COUNTY MEDICAL SOCIETY.

Stated Meeting, Jan. 22, 1877.

Dr. John C. Peters, President, in the Chair.

The Comitia Minora recommended that certificates of membership be granted to the following candidates: Drs. T. M. L. Chrystie, J. H. Swazey, Henry G. Chace, Augustus Assenheimer, G. K. Bentz, Anna D. French, C. P. R. Schoenemann, Charles Kremer, J. S. Caradine.

The following resolution, introduced by Dr. R. J. O'Sullivan and referred to the Comitia Minora, was reported by that committee and adopted by the Society:

"*Resolved*, That the Medical Society of the County of New York deem it necessary that additional safeguards be adopted to protect the health of children in the public schools; and will unite with other medical societies, and with the Medico-Legal Society of New York, in their efforts to obtain such regulations, and such further legislation as may be necessary to accomplish this end."

THE CELL DOCTRINE IN THE LIGHT OF RECENT INVESTIGATION.

Dr. Charles Heitzmann delivered a discourse upon the above subject, and gave not only the various theories which have been from time to time held regarding cells, cell development, and protoplasm, but his own peculiar doctrine respecting living matter.

It was assumed that living matter consisted of molecules, of which nothing was known save their chemical constitution. We had been made aware, however, that living matter possessed certain properties—namely, motion and power of producing its own. The motion was of two kinds—namely, simple change of shape, and locomotion. Change of shape was regarded as characteristic of every particle or molecule of living matter in plants as well as in animals. Locomotion had formerly been regarded as characteristic of animal living matter; but it was now known that there existed in the seeds of some low forms of plants the capability of changing their location. The more our knowledge extended, the more the boundary wall between animal and vegetable living matter was broken down. The distinction made by Huxley—namely, that vegetable living matter was nourished from elementary food, while animals were sustained by composite substances, was rejected, for the reason that we knew really nothing as to how plants were nourished.

The second property of living matter—namely, power of producing its own—was of two kinds: it might be simply an increase in size, or increase of its own kind through propagation.

With regard to the shape of living matter, Dr. Heitzmann made reference to the cell doctrine of Schwann, the views of Virchow, Max Shultze, Brücke, and Stricker. His own theory regarding the shape of living matter stood at variance with what has preceded it, and may be embraced in the following statement:

A freshly made infusion, examined on the fourth day, having been kept in a pretty cold temperature, would be found to contain the first traces of newly formed animal or vegetable matter in the form of small, shining, yellowish, homogeneous particles, visible with a lens which magnifies from 1,000 to 1,200 diameters.

Next, particles not entirely homogeneous—the periphery remaining the same, but the centre showing signs of differentiation.

Next, particles containing one, two, or three granules. Then bodies which had a frame-work containing particles and some fluid.

On the fifth or sixth day there appeared elements capable of motion, containing granules and a nucleus. No locomotion prior to that date.

In New York the amœba had appeared more frequently without than with a nucleus. This could be seen with a low power. In Vienna the nucleus had almost invariably been present. The nucleus never changed its shape, but was really dragged after the granular contents by the movements of the body. That was an original observation.

The granules were connected with the nucleus and with each other by means of thread-like processes; and these in turn extended into and through the layer of living matter which surrounded the mass of granules, threads, and nucleus, rendering movements possible, and might be united with other bodies of the same character.

The nucleus was nothing but an enlarged granule. It was maintained that the same change could be observed in the white blood-corpuscles of the crab and newt, in the human white blood-corpuscles, in the colostrum corpuscle, in the cartilage corpuscle—although in the latter no locomotion was possible, because it was included in a matrix.

Were not those changes fanciful?

Resort had been made to two methods, for the purpose of demonstrating their truthfulness.

First, unprejudiced observers had been invited to look, and they had seen the same changes—a fact to be taken as evidence that the original observer was near the truth.

Second, independent drawings had been made by means of photography. Dr. Heitzmann had seen the demonstration of his theory upon micro-photographs of cancerous sections made by Dr. Woodward, of Washington. The distinct structure of the protoplasm, as described by Dr. H., could be seen, but when he directed Dr. Woodward's attention to it, the latter disputed the doctrine, and regarded the appearance

as nothing but evidence of coagulation or decomposition.

Dr. Heitzmann, however, firmly believed that the same structure was present in the living protoplasm, and would in the same manner be demonstrated by photography if the picture was made while the lump of matter was alive.

In view of the present theory, it was proposed to abandon the word cell, because it had no sense connected with it, and substitute the word corpuscle, amœba, granular body, or whatever term might be deemed most proper to be employed.

Dr. Heitzmann was willing to struggle for his doctrine, because he was convinced that the truth would always triumph.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Jan. 28th to Feb. 1st, 1877.

McCormick, C., Asst. Medical Purveyor. Promoted Surgeon, with rank of Colonel, vice Wright, retired.

Swift, E., Surgeon and Major. Promoted Asst. Medical Purveyor, with rank of Lieut.-Colonel, vice McCormick.

Magruder, D. L., Surgeon. Granted leave of absence for two months. S. O. 21, A. G. O., Jan. 29, 1877.

Bill, J. H., Surgeon. Assigned to temporary duty at McPherson Barracks, Atlanta, Ga. S. O. 23, Dept. of the South, Jan. 30, 1877.

Wright, J. P., Surgeon. When relieved by Surgeon Fryer, assigned to duty at U. S. Military Prison, Fort Leavenworth, Kansas. S. O. 18, Dept. of the Missouri, Jan. 29, 1877.

Fryer, B. E., Surgeon. Assigned to duty as Post Surgeon at Fort Leavenworth, Kansas. S. O. 18, C. S., Dept. of the Missouri.

Notson, Wm. M., Asst. Surgeon. Promoted Surgeon, with rank of Major, vice Swift.

Whitehead, W. E., Asst. Surgeon. Assigned to duty at Fort Riley, Kansas. S. O. 18, C. S., Dept. of the Missouri.

Moffatt, P., Asst. Surgeon. Leave of absence extended two months. S. O. 24, A. G. O., Feb. 1, 1877.

Wilcox, T. E., Asst. Surgeon. Assigned to duty at Camp Supply, Indian Territory. S. O. 18, C. S., A. G. O.

Price, C. E., Asst. Surgeon. Assigned to duty at Alcatraz Island, Cal. S. O. 8, Mil. Div. of the Pacific and Dept. of California, Jan. 17, 1877.

Wood, M. W., Asst. Surgeon. Granted leave of absence for one month, and permission to apply for two weeks' extension. S. O. 10, Dept. of the Platte, Jan. 23, 1877.

Andrews, W. C. C., Asst. Surgeon. When relieved by Asst. Surgeon Davis, to report in person to the commanding General, Dept. of Columbia, for assignment to duty. S. O. 21, C. S., A. G. O.

Robinson, S. Q., Asst. Surgeon. Assigned to temporary duty at U. S. Military Academy. S. O. 21, C. S., A. G. O.

Davis, Wm. B., Asst. Surgeon. Assigned to temporary duty at St. Louis Depot, Mo. S. O. 21, C. S., A. G. O.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending February 3, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Jan. 27.....	0	6	76	6	14	32	3
Feb. 3.....	0	6	66	1	4	43	0

St. Vincent's Hospital, N. Y.—It is proposed by the present trustees of St. Vincent Hospital to erect a new building in place of the old one, located in West Eleventh street. Fifteen vacant lots at Sixty-eighth street and Ninth avenue have been purchased at a cost of $100,000. Plans are now being prepared for the new building, which will be surrounded with spacious grounds for the recreation of the patients, and furnished with all the modern hospital improvements. The present hospital was started in 1849, by the late Bishop Hughes, and is conducted by the Sisters of Charity.

Malarial Diseases in New York during 1876.—Dr. Charles P. Russel, Sanitary Inspector of the Board of Health, makes the following report to the Sanitary Superintendent:

"Two hundred and thirty-one deaths from malarial diseases were recorded within the year. All such cases were assigned to Sanitary Inspectors for investigation with the main object of ascertaining definitely, if possible, the locations where said diseases had originated. In order to arrive at a satisfactory conclusion in any instance, the Inspector was obliged to see personally, or communicate with the attending physician, and frequently, also, to make an inspection of the place where the death had occurred. Many physicians refused or neglected to afford any information on the subject. Quite a number of cases were excluded on account of uncertainty as to the actual cause of death, or as to its complication with a malarial element. Ninety-six cases, however, were fully investigated, and I now submit the information thus obtained. As regards locality, I have divided the city into three parts:—First, the solidly built upper portion below Ninety-ninth street and the Central Park—believed to be generally exempt from malaria. Second, that district, more or less malarious, extending from Fifty-ninth street to Harlem river. Third, the territory north of Harlem river, known as the annexed district, or Twenty-third and Twenty-fourth wards, embracing a territory prolific of malaria in almost every direction.

"Deaths from remittent fever, 45; typho-malarial fever, 19; intermittent fever, 20; congestive chill, 2; malarial disease, 10.

"Places of death: South of Fifty-ninth street and Central Park, 54; between Fifty-ninth street and Harlem river, 34; north of Harlem river (annexed district), 8.

"Origins: From local cause, 42; in specified locations outside of New York city, 16; decidedly non-local, but place not stated, 7; uncertain, 31; from local causes, below Fifty-ninth street, 11; from local

causes between Fifty-ninth street and Harlem river, 24; from local causes in annexed district, 7."

Practice of Medicine in France.—A measure is now in progress in France to prohibit British or other physicians from practising there, unless they have been educated and graduated in French universities.

Dr. Edward Warren (Bey), of Paris, late of Baltimore, is among the "eminent members of the profession" who are announced by the *Lancet* as its special contributors for the year 1877.

Popular Health Almanac for 1877.—Mr. Frederick Hoffmann's almanac has made its appearance for 1877, and is as full as usual of interesting and valuable information for families. Not the least among the interesting things for physicians is a published list of the ingredients of several of the popular quack nostrums. We give it our unqualified approval.

The Woman's Hospital.—The twenty-third annual report of the State Woman's Hospital, New York, shows that institution to be free from debt and in a prosperous condition. The Baldwin pavilion has been completed. Three free beds were endowed during the year. By the opening of the new pavilion, the hospital has been enabled to offer increased accommodations for the treatment of wealthier patients who find it difficult to obtain proper treatment and nursing in hotels. During the past year 289 patients have been admitted to the hospital; 162 operations have been performed; 15 deaths have occurred; and 237 patients have been discharged—leaving 51 still in the ward on October 1 last. In the out-door service 3,500 consultations have been held by the corps of assistant surgeons, and skilled treatment furnished to a very large circle of poor patients. The report of the treasurer of the Board of Governors shows the expenses of the hospital during the year, ending November last, to have been $118,744.05, and the receipts during the same period from donations, interest on investments, and other sources, $127,901.20, leaving a balance of $9,157.15. The report of the treasurer of the Board of Supervisors for the eleven months ending October last, gives the expenditures for salaries, provisions, repairs, etc., as $24,440.80, and the receipts during the same period as $24,506.76, leaving, with the balance of $603.55 of the previous eleven months, a balance on hand of $669.51. During the year the donations of private individuals amounted to $67,357.33, the subscriptions of the "Woman's Century"—a society of ladies organized for the purpose of preventing an accumulation of debt on the hospital—amounting to $1,855.

Fires in Theatres.—The municipal authorities of Manchester, Eng., have made a thorough investigation of the means of egress from the local theatres and public halls, and offered certain suggestions regarding the prevention of fires and panics, which the managers are willing to carry into effect. In three of the largest theatres the stair-ways and passage-ways leading from the galleries were pronounced unsafe. The *Echo* regrets that a similar report has not been ordered in London, and suggests that it should be made somebody's business before the Surrey Music Hall catastrophe is repeated.

Recently the Union Square Theatre, of this city, has adopted all the necessary precautions against accidents by fire, and has so far profited by the suggestions of scientific men in regard to the protection of the scenery, and the provision of extra facilities for egress, that its example should be followed by every place of amusement in the country.

American Beef and Mutton.—The English press is almost unanimous in its commendation of the excellence of American beef and mutton. The trade in these articles of food is growing very large, 700 tons sometimes arriving at Liverpool in one day. It sells immediately, and is now marketed in London, Liverpool, Manchester, Sheffield, Birmingham, Nottingham, and many other towns.

Albany Medical College.—At the recent commencement, held January 31, thirty-eight gentlemen received the degree of doctor of medicine.

Bismuth in Eczema.—An ointment, containing about one drachm of bismuth subnit. to the ounce, relieves greatly the itching and pain of eczema and many other forms of skin disease.

Medical Society of the State of New York.—The transactions for 1876 are now ready for distribution. Permanent members, after paying their annual dues of $2.00 to the Treasurer, Dr. Chas. H. Porter, of Albany, will receive a copy free of other expense.

The following resolutions were passed at the last meeting of this Society:

I. Each permanent member shall pay to the Treasurer of this Society an annual assessment of $2.00.

II. Each permanent member, who shall have paid his annual dues, shall have a copy of the transactions for the year for which he shall have paid, sent to him by the Committee of Publication.

The price of the transactions for 1876 will be $1.50, with 15 cents additional for transportation.

The Practice of Medicine in Flooded Country Districts.—For some time past the country roads in England have been almost impassable on account of floods. The rural practitioners have experienced more than ordinary difficulty in visiting their patients. In some instances boats had to be used to get to farm-houses, and extemporized bridges had to be erected to enable the physician to reach the second story dry-shod.

A Good Excuse for a Juror.—A London juror was promptly excused from serving because he was an undertaker, and his principal business lay in a district in which small-pox was very prevalent.

Arctic Expedition.—The English Board of Admiralty have appointed a committee to inquire into the cause of scurvy in the recent Arctic expedition. Dr. James Donnett, Inspector of Hospitals, R. N., is the medical member.

Poisonous Hair-Dyes.—Out of twenty-one examples of hair-dye examined by the *Lancet* commission, seventeen contained lead in large quantities.

Small-Pox spread by Money.—A writer in the *British Medical Journal* calls attention to the spread of small-pox by means of money paid out by a member of the family in which the disease exists. This is by no means a new observation, but it is well to keep it in mind in view of the chances of "stamping out" the disease by the ordinary methods employed.

Novel Vaccination.—Forty-seven young men bargained with a physician in California to be vaccinated with the virus from the arm of a noted belle in their neighborhood. All the cases "took" splendidly, the virus obtained in each being identical in property and power with that from the original calf. Where calves are scarce this is an experiment worthy of trial.

Original Lectures.

EXAMINATION FOR LIFE INSURANCE.

By WILLIAM DETMOLD, M.D.,

EMERITUS PROFESSOR OF CLINICAL AND MILITARY SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

(Phonographically reported for the MEDICAL RECORD.)

LECTURE II.

GENTLEMEN:—At the close of my last lecture I was speaking to you with regard to the relative proportion which exists between the height, the weight, and the circumference of the chest in a well-developed man at the age of thirty years. Now, when I speak of a well-developed muscular system, I do not refer to athletes, especially those who have undergone training for extraordinary efforts, such as rowing, running, prize-fighting, etc., for those belonging to this class of persons, as a rule, are short-lived men; I have never seen them reach old age. Repeated training for such efforts is very apt to be injurious. Moreover, the exclusive development of any one system is done almost always at the expense of the others. Thus it is that if a man devotes himself almost entirely to deep scientific study and neglects muscular exercise, he does it at the expense of one system, and suffers all the inconveniences attendant upon dyspepsia and its associated disorders.

When you have taken a general survey of the applicant you should inquire regarding his occupation, for there are certain pursuits which do not conduce to longevity. Among these are such as render the person liable to the accumulation of insoluble dust in the lungs. Stone and marble cutters are all short lived. Bakers are not long-lived, because their labor is mostly performed at night, and they inhale a great deal of insoluble dust.

Again, such pursuits as expose the individual to a great many accidents are non-conducive to longevity. Miners and butchers are not long-lived. Most butchers will get very fat, and that will increase the probabilities of short life already afforded by their occupation. All keepers of liquor-stores are short-lived, and most of them die of Bright's disease. They are, as a rule, too good customers in the consumption of their own wares.

The learned professions give the best average duration of life, which is said to reach as high as seventy-six years. Among the learned professions the medical, so far as the duration of life is concerned, is the very best, for the average reaches as high as seventy-six and a half or seventy-seven years. Now, understand that does not apply to the individual. All these conclusions for the individual are out of the question; but when calculations are upon multitudes the statistics are almost invariably correct.

SUICIDES.

A few words concerning suicides. Suicide is a very awkward affair in life insurance. A man wishes to provide for his family; he gets his life insured, and then commits suicide with the expectation that his family is to receive the moneyed benefit. Now, most of the companies have inserted a special clause in their policies stating that suicide vitiates the insurance. But that does not amount to anything; all the juries are in favor of the bereaved family; they will almost always find evidence of temporary mental aberration, and of course do not regard the person as responsible for his act. It has been alleged that suicide is always a consequence of insanity; but that does not hold good. In England it is admitted that if the suicide is committed within two years after taking out an insurance policy it is purposely done, and that view is taken upon the supposition that if more than two years elapse the suicidal intention will be given up, and the person will come to his senses and not commit the act.

The statistics with reference to suicide are rather interesting. Suicide, as may be seen by the accompanying table, is a consequence of civilization—not directly, but as the result of the vices which follow in the train of civilization. The honest farmers, the honest mechanics, the honest day-laborers, are not likely to commit suicide; it is the broker who gambles in stocks; it is the man who lives beyond his income, etc.; it is these classes which furnish the greater number of suicides. This curious table referring to suicides was made in the year 1827, and it is seen that in Russia there was one suicide in every 49,128 inhabitants.

Russia	1 in 49,128
Austria	1 in 20,900
France	1 in 20,740
Philadelphia	1 in 15,875
Prussia	1 in 14,404
Baltimore	1 in 13,656
New York	1 in 7,797
London	1 in 5,000
Paris	1 in 2,040

It is shown by this table that as the vices increase, which follow in the train of civilization and multiply with it, the number of suicides is materially increased.

But suicide runs in families. It may be the result of a sombre disposition characteristic of the family, or it may be in consequence of early education and the incorporation of certain ascetic and religious views. If a number of suicides have occurred in the family of the applicant, his application is objectionable, and if you do not reject him upon that ground, you should direct the attention of the company to the fact, for it is not an easy matter to escape the payment of the policy when the suicide has been committed.

EXAMINATION MODIFIED BY KIND OF POLICY DESIRED.

The result of your examination is materially modified by the kind of insurance policy the applicant desires. If he wishes to insure for a certain amount, payable at his death, the probabilities with regard to longevity are to be taken into consideration. But it is entirely different when the person desires to insure his life for a limited number of years. For example, a man enters upon some hazardous business and invests all his property; he says to himself, if I can succeed within five years, I shall have sufficient with which to make provision for my family, but if I die within that time I shall lose all my capital, and my family will be left destitute. He wishes, therefore, to insure for only five years. That is to say, if he dies within five years, the company is to pay a certain amount, but if he lives there is nothing to pay. Of course, the statistics are just as clear upon the liabilities to death within five years as upon the average duration of human life. For it has been found that out of one thousand healthy men at the age of thirty years, a certain proportion die within five years; and upon that calculation the premium is based. In the examination of such an applicant you have less to do

with longevity than when the policy is for life, and you may accept a person for five years whom you would reject if an applicant for a life policy. Even if he is dyspeptic, or his father and mother have died of consumption, he may be accepted for a short period. Your examination, therefore, is materially modified as to whether the insurance is to be for life or for a limited number of years.

CONFIDENTIAL EXAMINATION OF THE APPLICANT.

There is one point in the printed instructions which are furnished the medical examiners of all our largest life insurance companies, to which I wish to direct your attention; and that is the *confidential* examination of the applicant.

Your examination should be confidential, and you should not allow any outside influence to bias your judgment. In the instructions it will be seen that it is directed that the agent shall not be present. The agent is an interested person; he gets a certain percentage of the premium, and does not care whether the applicant is a long-lived or a short-lived person, so long as he obtains his fee. Indeed, he is anxious to have the applicant pass, and there is always some conflict between the agent and the examiner if the applicant is rejected. Your examination should be made entirely independent of the agent. The examiner is entirely disinterested, because he gets his fee whether the applicant is rejected or accepted.

An English company some years ago established a branch office in this country, and a medical man was made agent and at the same time medical examiner. It is difficult to understand why a company should do such a foolish thing, for it is offering a premium to dishonesty.

To illustrate the workings of such a concern, I will refer to a case which fell under my observation:

A man who, three weeks before, had received a policy for five thousand dollars, came to me for medical advice, and it was found that he was far advanced in phthisis. I recommended to the company that the man should be bought off, inasmuch as he was willing to accept four thousand dollars for his insurance policy. The company declined to accept the suggestion. The man died within three weeks; the company paid five thousand dollars, and failed within three years. Men are not honest enough to hold such a double position; or if honest, their judgment is not good.

INSANITY.

It is proper to exclude insanity, but it is not always the fact that insanity shortens life. The exposure of insane people to accidents and to suicide renders it necessary that a hereditary predisposition to insanity should exclude the applicant for life insurance. There is one form of insanity which should not be excluded, and that is, if the mother has had puerperal mania. It certainly is not inherited by the sons, although it may possibly be prejudicial to the daughters.

DRUNKARDS AND TEETOTALERS.

If the applicant is an habitual drunkard, he should be rejected; nor should he be accepted if he is teetotaler; for in a very large proportion of cases the teetotaler is a reformed drunkard. A reformed drunkard is to be examined with great care, especially if his countenance is pallid, his face a little puffy, and his hands a trifle tremulous.

TOBACCO.

There is considerable difference of opinion regarding the effects produced by the use of tobacco. I do not think that tobacco injures unless its use is carried to such an excess as to injure the constitution. What may be a moderate use for one person may be excess for another. Some persons are made exceedingly nervous by its use; but it is not the tobacco, it is the excess which gives rise to the trouble, and the excess is objectionable. Excess in the use of beefsteak is bad, and so is excess in sexual intercourse. If the insurance men were to prohibit the use of all that is bad when carried to excess, they would necessarily prohibit sexual intercourse, for there is a general admission that it is one of the most prolific sources of evil when carried to excess. They are all harmless, providing that excesses in them are excluded.

OPIUM.

With regard to opium there is a very curious question. Now, opium eating, as a habit, is objectionable, and the insurance companies, if they know it, will not take the risk. It is not easy, however, to discover the habit. Some fifty years ago a nobleman in England, who had his life insured for a large amount, died, and after death it was found that he had been an habitual opium eater. The company, on account of the concealed habit, objected to the payment of the insurance. The opinions of medical men were obtained to the effect that it did not shorten his life; and it was then decided that the habitual use of opium was not objectionable so far as longevity was concerned. But in this country the habitual use of opium is regarded as objectionable, and it may be for the reason that most opium eaters are reformed drunkards.

PULSE.

A pulse which habitually beats over eighty to the minute is objectionable. The pulse is much more irritable in the evening than in the morning. A pulse which numbers eighty-eight while the person is standing will sink to eighty in the sitting posture, and perhaps to seventy-five when lying. An intermittent pulse may not be objectionable, but an irregular pulse is decidedly objectionable. The pulse varies, then, according to the position of the person, and it will also be found to vary according to age, as illustrated in the following table. Any marked deviation from these figures is objectionable:

Age.	Medium Pulse.
10 to 15 years	88
18 " 20 "	77
20 " 25 "	78
25 " 30 "	74
30 " 35 "	73
35 " 40 "	73
40 " 45 "	75
45 " 50 "	70
50 " 60 "	74

SYPHILIS.

I am inclined to believe that the idea commonly entertained in insurance companies with reference to syphilis is an exaggerated one. Death does not occur frequently from syphilis. It is true that syphilis will occasionally be the cause of aneurism; but aneurism is comparatively rare. You should be guided more by the fact whether syphilis has impaired the constitution, than by the mere evidence of its previous existence. I have now directed your attention to questions to be considered while making a general survey of its applicant; and at my next lecture will take up the special examination, devoting a brief period of time to points which would not be important were we called upon simply to make a diagnosis.

Original Communications.

A CASE OF HYSTERICAL HEMIPLEGIA, WITH NEURALGIA OF THE TRIGEMINUS AND AMBLYOPIA,

OCCURRING IN A FAMILY OF MARKED NEUROTIC CHARACTERISTICS.

By CHARLES S. BULL, M.D.,

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The occurrence, both simultaneous and successive, of various neuroses in patients who are the subjects of hysteria, is a very common one, and this is an especially noticeable fact in families where there is a marked neurotic tendency in several or all of the members. It seems to be a generally recognized fact that hysteria is not only hereditary directly, but also collaterally and indirectly. We know that hysterical patients almost always number, among their near relatives, some instances of other neuroses, as epilepsy, hypochondriasis, mania, etc. In not a few instances also, some members of a family, with a tendency to neuroses, have been deaf or blind, or both. On the other hand, we sometimes meet with certain abnormal symptoms or characteristics in the children of families where the parents display no such neurotic tendency, but in which the grandparents did, and these cases must be considered as phenomena of atavism and not of direct heredity. Careful study of the neurotic manifestations in various members of a family has shown in effect, that during one, two, or three generations, the individuals of the same family at first presented nervous phenomena of a minor or less severe type, as migraine, chorea, or peripheral troubles of the vaso-motor system, but that later descendants suffered from more severe neuroses, such as epilepsy, hemiplegia, etc.

The period of appearance of hereditary neuroses varies according to the particular disease in question, but so irregularly that no rule can be laid down to guide us in our diagnosis.

The following case is presented, not because any one of the symptoms is rare, or because of the various ocular symptoms, but because of the marked neurotic character of the family, and the number of neuroses presented by the patient herself.

Case.—Rebecca D., æt. 21, English, a well developed, robust-looking girl of brunette type, was first seen by me Oct. 4, 1875, and gave the following history: She had suffered for a number of years from intermittent attacks of pain and redness in both eyes, which of late have increased in frequency and severity. She was perfectly well up to her seventh year, at which time she had an attack of bronchitis, and a cough has remained ever since, accompanied by occasional dyspnœa and shortness of breath. When she recovered from the bronchitis, she developed symptoms of general chorea, which lasted, with occasional intermissions, for nearly three years, and then disappeared under systematic treatment. In her thirteenth year she became partially paralyzed on the left side, both of motion and sensation. The left leg dragged behind her when she walked, but the left arm and hand were completely paralyzed. This condition lasted for two years without any change; then her menses made their appearance, and she began slowly to improve, but it was more than a year before she entirely recovered. Since then there have been frequently repeated, but irregular tonic contractions of the facial muscles, sometimes occurring two or three times a day. They were never painful, but she could not speak while they were present. She has never lost consciousness, nor complained of any head symptoms until recently. During all these years the patient's general health has been good, and the general tone of her system does not appear to have suffered. The neuralgic attacks occurred in all the branches of the fifth nerve on both sides, were intensely painful, and of late have shown a preference for the right side of the face and head.

As regards the family history, the neurotic diathesis, if there be such a thing, is very marked. The father is rheumatic, and has been neuralgic since early youth. A sister of the patient died of chronic hydrocephalus at the age of fourteen, having been totally blind in both eyes for three years. Another sister died with some brain trouble in her ninth year, having been subject to convulsions. Another sister is choreic, and a brother is very dissipated, and has had convulsions.

In June, 1875, after an unusually severe attack of neuralgia of left supraorbital and infraorbital nerves, vision began to fail in L. E., and the eyeball became intensely congested. This conjunctival hyperæmia has always been preceded by an attack of neuralgia of the same side, and sometimes lasted for a number of days, though the neuralgia generally diminished in intensity after the first day. Vision grew rapidly worse, until she became entirely blind in L. E., and remained so for about four weeks, and she only began to regain the sight about a week before I saw her (Oct. 4, 1875). An examination revealed nothing abnormal externally in either eye, except the conjunctival injection of L. E. No vesicles, nor any sign of herpes; irides natural and pupils reacted well. Media clear; optic disks perhaps a trifle pale, but certainly not pathological; no pulsation in retinal vessels. R. E. V.$=\frac{20}{70}$; field concentrically limited; L. E. V.= quantitative perception of light. Complains of constant occipital headache, and frequent attacks of vertigo. The patient's chest was examined and found perfectly sound, and frequent examination of the urine showed nothing abnormal. Quinine at first was administered in large doses, but with no result upon the neuralgia; and the deafness from its use being marked, it was discontinued. The constant current was then employed every day for ten minutes, from a battery of eight cells, one pole being placed along the spines of the cervical vertebræ, and the other upon the closed eyelids, or in the course of the painful nerves, and this was persevered in for three weeks, as the neuralgic attacks became less frequent and lost in intensity; but there was no improvement in the vision. Before I saw her, she had been treated for nearly three months by a daily hypodermic injection of strychnia, but with no improvement.

On Nov. 1, 1875, I began the administration of the elixir of phosphorus, quinine, and strychnia, but after a week was obliged to discontinue it on account of constant diarrhœa. After an interval of six days, the neuralgia recurred with violence on R. side and lasted for four days, accompanied as usual by great conjunctival hyperæmia. During all this time there was no improvement in vision of L. E., and a slow and steady failure of vision in R. E. had appeared since the neuralgic attacks have been confined to the R. side. On Nov. 19, 1875, another aggravated attack of neuralgia in all branches of R. fifth nerve, V.$=\frac{10}{70}$.

On Nov. 29, 1875, vision began to return in L. E., so that large objects could be discerned. For past

week patient has been taking a drachm of potass. iod. daily in divided doses.

Dec. 5th, R. E. V.= $\frac{5}{7^{0}}$, L. E. slight improvement, so that she can count fingers held closely to the face. From this time up to Jan. 1, 1876, constant neuralgia in R. frontal nerve and no further change in vision of R. E.

On Jan. 12, 1876, R. E. V.= $\frac{5}{7^{0}}$, L. E. V.= fingers at fifteen feet. Began administration of liq. potass. arsenitis in gtt. v. doses, and ordered patient to increase each dose every day by one drop, until limit of toleration was reached. After first two days of this treatment, the neuralgia disappeared and has returned only twice since, now a period of nearly a year. The dose of arsenic was carried up to gtt. xvi. three times a day, and then continued at this mark for a week, and afterwards gradually diminished.

Since the first time I examined the patient there has been absolutely no change ophthalmoscopically from a perfectly normal fundus. One curious fact was, that soon after the final cessation of the neuralgia she had a severe attack of quotidian intermittent, which lasted eight days before yielding to quinine, and in spite of the steady administration of Fowler's solution. This was followed by an attack of bronchitis, which, however, soon yielded to treatment. On June 24, 1876, R. E. V. = $\frac{2^{0}}{2^{0}}$ L. E. V. = $\frac{1^{0}}{1^{0}}$, and since then there has been no improvement in either eye, and yet no change in fundus. The neuralgia returned in R. supraorbital nerve in October, but a few days' administration of arsenic sufficed to break it up, and it has not returned since.

The case has several points of interest for the general practitioner. In the first place the marked neurotic character of the family, as exemplified in several members, and the distinct hereditary influence at work in the production of the various nervous manifestations. In the next place the various forms of functional nerve disturbance to which the patient was subject at various times. Even the bronchial trouble seems to have been of a nervous nature, for the cough, which began then, has lasted ever since, without there being pulmonary or laryngeal cause for it. Then came the chorea, followed at a longer interval by hemiplegia, which seems to have been well marked in the arm, less so in the leg. Then came the more enduring neuralgia of the trigeminus, and lastly the rather remarkable amblyopia, the latter being the only neurosis which resisted treatment. Functional amblyopia, as a result of long-continued neuralgia of the fifth nerve, has been occasionally met with, but it is sufficiently rare and almost never gives any ophthalmoscopic evidence of its existence. In our patient there did not seem to be any epileptic element, so that she could not be considered as a case of what Charcot calls "hystero-epilepsy, in which ocular troubles are not at all uncommon. Such patients also are apt to present signs of deafness and diminution of taste and smell on one side. What the change is in hysterical amblyopia, and where it is, whether central, or in the optic nerve or retina, we do not know. Primarily it is, of course, an abnormal nervous condition, which probably reacts on the vascular system. The arterial and capillary systems perform their healthy functions so long only as they retain the normal influence of the nerves supplying them, whether locally or generally. If the supply of nervous influence fails, the capillary system of a part loses its normal tone and the vessels here dilate. This, perhaps, may account for the condition of the injected conjunctiva but not for the amblyopia, for at least within the eye there is no dilatation of vessels visible.

A few words in regard to the hemiplegia. Here there was probably a spasm of the blood-vessels, for although this may not have been the efficient cause, it most likely had something to do with this condition of functional derangement. It is certainly an uncommon and anomalous condition, and is usually confined to a single limb, such as an arm or leg. When the leg and arm of the same side are affected the weakness is said to be more marked in the leg, whereas in our patient the arm was the most affected. It is also said to occur more frequently on the left side, and this was the case also in our patient. Wilks relates a case of hysterical hemiplegia in Guy's Hosp. Rep., Vol. XVII., 1871–72, in a young woman æt. 30, who had been long subject to migraine. A numbness appeared in the little finger of the left hand and gradually involved the whole arm. Several months later the left leg also became numb in the same way. For some months before Wilks saw her there had been paralysis of the entire left side, including the face and eyelids. She had had one convulsion, followed by unconsciousness. On admission, June 14, 1871, there was left ptosis, equal pupils, eye movable, left hemianæsthesia and hemiplegia.

There is a very interesting case recorded by a French author some time since, though where reported has escaped me. The patient was a woman æt. 34, who had suffered from tri-facial neuralgia from childhood, the pain being limited to the superior and inferior maxillary divisions of the fifth nerve of left side. The pain was not continuous, but the paroxysms were very violent, and were complicated by the loss of smell for pure odors, deafness on the left side during the paroxysms, profuse salivation and lachrymation, partial dilatation of left pupil, and paresis of left half of sphincter oris and left levator anguli oris. There was also an increase of temperature on left side of face, but no hyperæsthesia or anæsthesia anywhere else. The patient's father and mother both died young of asthma, and four children preceding her died young.

Armaingaud mentions a particular form of intermittent hysterical phenomena in which the vaso-motor troubles become very prominent, and, in fact, constitute the whole malady, and such must be the localized injections of the ocular and palpebral conjunctiva in our patient during and after an attack of neuralgia of the frontal nerve.

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ON THE CURE OF TUBERCULOSIS OF THE LUNGS BY INDUCING CALCIFICATION.

By C. BOTH, M.D.,

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My attention was drawn to this subject by a post-mortem examination, made at Wuerzburg by Virchow, I think. The subject having died from some injury, presented, quite unexpectedly, a lung which had previously been the seat of tubercular inflammation, and which was then entirely healed by a spontaneous process of calcification. I remember well the stir this case made at the time, and it left the impression on my mind that a result which nature brings about spontaneously, we must necessarily be able to effect with certainty, provided, first having discovered the conditions under which, and the method by which, she accomplishes this—we thus succeed in imitating her.

Dr. John Hughes Bennett, in his "Pathology and Treatment of Pulmonary Tuberculosis, 1853," Blanch-

ard & Lea, 1854, pages v. and vi., says: "Although it was generally considered by the profession that no remedy and no plan of treatment yet employed could be depended on in cases of consumption, it was obvious to the author that if the process employed by nature could be discovered, and then imitated by art, we might ultimately arrive at the true principle of cure." In this same book he publishes cuts of pathological specimens, prepared by himself, representing this spontaneous process of calcification. Similar opinions have been expressed by Piorry, Thiercelin, Alison, Churchill, Cannstadt, Virchow, Niemeyer, and many others.

In 1853, while trying to introduce to the profession of Boston what is now known as cellular physiology and pathology, I was reminded that such was of no *practical* value. This had not occurred to me before, and I thereupon resolved to test the same at once. While at work arranging matters for this purpose, a tubercular consumptive presented himself for treatment. With the idea derived from the post-mortem examination above referred to fresh in my mind, I concluded at once to try to effect calcification in this case. The attempt proved successful, the patient still living to-day, perfectly well, in Frankfort-on-the-Main.

In considering this case it appeared to me that the re-establishment of capillary circulation in the parts affected was the cardinal point; for when lime is to be deposited as the curative element it can only be carried there by the blood-vessels. I remembered from experiments which I had made on frogs' legs and the lungs of water lizards, while engaged in anatomical researches under the guidance of Dr. Stilling, to have observed that capillaries, becoming obstructed, would swell and burst, allowing the blood-globules to escape in the tissue meshes. This observation, which I first published in Boston, in 1860, before an audience of about one hundred and fifty physicians, and again in 1863 before the Massachusetts Medical Society, was afterwards published in Berlin (1866) under Cohnheim's name, and again by the Smithsonian Institute (1870) as the latest European discovery.

Upon reconsideration of the mechanism of respiration I became convinced that the blood, through the long serpentine lung capillaries, could not be propelled by the action of the heart, but by respiration only; that, in respiration, the nitrogen of the air was the agent of mechanical pressure, and the oxygen the chemical factor; that oxygen was a thinner gas than nitrogen, and therefore able to penetrate the air-vesicles, while nitrogen could not. This supposition, arrived at by mere logical calculation, has since been proven correct by experiments made by Graham, whereby he increased the amount of oxygen in the air to forty per cent. by filtering air through India-rubber shavings. (*Scientific American*, May 1, 1869, p. 279). From this I arrived at the conclusion that stagnation of circulation in the lungs must occur wherever the mechanism of respiration ceases, which again must finally lead to an accumulation of blood globules in the vessels, thus forming a thrombus and occasioning distention and rupture of the vessel, with escape of blood-globules into the tissue meshes; that tubercles, therefore, were nothing but escaped blood-globules lodged in the meshes, where they remain and act as foreign bodies. This view has since been corroborated by Professors Petroff, Schueppel, and Waldenburg.

The white and red globules, together with the serum, fill out one or several meshes; the serum next becomes absorbed or evaporated; the red globules lose their pigment (which is afterwards found in tubercles); they then shrivel and their contents coagulate, appearing somewhat like nuclei. The cells themselves change into pus cells, or, according to surrounding influences, into fat cells; they next either decay and infect the neighboring tissue cells, or they may calcify, thus becoming inert. We thus find an explanation for the gray, the yellow, the softening and the calcified tubercle. The latter form, being inert, is the one we seek to produce. An absorption of fresh tubercle cannot occur because there is stagnation of circulation and paralysis of the nerves surrounding the tubercles. The tissue meshes being permanently filled out with blood, occasion simultaneously a collapse of the air vesicles and bronchioles, with more or less catarrhal inflammation of the latter as a consequence.

I therefore determined to commence treatment by clearing these bronchioles and vesicles as much as possible, in order to again procure pressure upon the meshes and blood-vessels. For this purpose I employed the muscles of the thorax to expand the chest, and thus force air into the bronchioles and vesicles by *suction*—not by pressure. The result of this is a long deep cough with increased expectoration, which is at first of a slimy, mucous character, afterwards more dense, and cheesy—at times bloody. The muscles are exercised in order according to their layers, viz.: first the pectorales, serrati, cucullaris, and latissimus dorsi; afterwards the intercostal and deeper vertebral muscles; and finally, the whole together with the abdominal muscles and the diaphragm. Neither machines, clubs, nor dumb-bells are employed; the weight of the body alone being used to increase the power of suction, which becomes enormous by practice and correct application. The deep inspirations which follow the tension of these muscles occur with relaxed bronchial muscles, thus opening the bronchi, while all machine manipulations occasion contraction of the bronchial muscles, which prevents the air from entering in those parts where we most desire and need it. These muscular exercises are not by any means easy, even for a well and strong person, as it would appear at first. In the case of a consumptive, with nearly paralyzed muscles, it requires a great deal of careful and intelligent guidance on the part of the physician. In directing the exercises due consideration must therefore be given, in each case, to the mental, physical, and nervous condition of the patient. Too much force causes pleuritis and possibly hemorrhages; too little, has no effect on the points of the lungs. The methodical tension of the muscles not only cleans in time the bronchioles and vesicles of phlegm and pus, but reawakens, to some extent, the paralyzed nerves around the tubercles, inducing again a partial capillary circulation. This constitutes the *local treatment* employed.

The *constitutional treatment* is by far more difficult and complicated. The condition of the glands and blood is in no two cases alike, nor perfect in any. Our first object is to ascertain the state of the intestines and liver. If these are in good order, so much the better; if not, they have to be regulated first. This accomplished, our next point is the state of the blood. Sometimes this is found in a relatively good condition, more often it is not. It is not generally sufficiently oxidized, and is loaded with the remains of used protein substances, which ought to have been excreted, but were not for want of higher oxidation. To reach this I employ citric, uvic, and pomic acids. These acids contain a higher proportion of oxygen than any constituent of the blood, and are the only ones which do not coagulate albumen. I generally use citric acid,

because it is the easiest to be obtained. I give the juice of from three to twenty lemons at a dose according to circumstances. The lemons are peeled, the juice pressed out, and taken without water or sugar. No unpleasant feelings should follow its administration. In proportion as these acids increase oxidation and excretion, fresh and new blood material should be furnished in the diet, so as to balance absorption, digestion, and excretion.

Finally, lime and silica are introduced in an easily digestible form, which is the organic; any mineral given in any other form cannot become assimilated. We know that certain plants grow in certain places, and contain certain minerals which are found in those places; such plants disappear the moment these minerals are deficient in the ground. Every farmer knows that witchgrass destroys the fertility of the land, by absorbing from it the phosphates and sulphates of lime and silica; for this very reason the juice of witchgrass is one of the medicines used to supply the organism with these minerals; and if we consult the history of therapeutics we shall find that Extract. graminis is one of the oldest popular remedies for consumption. A popular and very peculiar remedy, once a secret medicine, formerly officinal, was the white excrement of dogs. Its officinal name was Album græcum, or magnesia animalis. How people came to use such stuff is very strange; yet it really contains organic lime, and it almost seems as if natural instinct had led humanity to seek unconsciously for organic lime as a remedy in consumption.

Another lime-containing plant is Achillea millefolium, also an old popular remedy. Thistles contain silica; plants growing in swamps, sulphates. I use the extracts of them in their crude state, as alcohol excludes the albumen, which contains the salts wanted. The following is an average formula as I use these extracts:

℞. Extr. graminis,
" trifolii fibr.,
" millefol.,
" card. benedicti.....āā ʒi.
Tartrate of soda..... ʒi.
Aqua..... ʒiiss.
Tinct. amara..... ʒiss.
M.

Dose: one to three tablespoonfuls daily.

There are many other plants which might be used for the same purpose, but I prefer these on account of their bitter extractive matter, which seems to act somewhat as a substitute for bile on the intestines.

In all diseases of a constitutional character we find the great sympathetic partially or wholly overtaxed, so as to induce either partial or general lack of activity. It must, therefore, become a cardinal object to lighten as much as possible the work of this nerve. This can be done by avoiding overtaxing unnecessarily its power in general, and by dividing and balancing its work properly. Upon comprehension of this depends the therapeutical effect of a correct diet, digestion, and excretion. I forbid for this reason any and all stimulants. They are for the sympathetic what the whip is for the horse. A good horse requires no whip, and the whip makes a lame or poor horse no better. The failures in the treatment of constitutional diseases are owing to a lack of appreciation of this fact. The idea of curing a diseased lung without securing the good-will of the sympathetic, is like fighting a battle without a well-drilled army to rely upon. A well-balanced and normal action of the sympathetic is the foundation upon which we cure a constitutional disorder, and upon no other basis whatsoever. Can we regain this we become master of the situation; if not, nothing will be of any use. In other words, we must establish the balance between *absorption*, *assimilation*, and *excretion*, without which nothing can be done in consumption, nor in any other constitutional disease.

The favorable result reached in my first case has led me to give special attention to the subject, and I have employed this method for the last eighteen years in all cases coming under my treatment, and have arrived at the following conclusions, viz.:

1. No case of chronic affection of the lung is curable unless we are able to re-establish vesicular breathing, or, at least, to force air into, and between the affected portions, so as to again induce, at least, *partial* circulation of blood and air.

2. No case is curable in which a nidus of pus exists *outside of the lung-tissue proper*, and within the reach of the general circulation, but beyond the reach of the knife or trocar; whether this be a lymphatic gland, or an abscess in the brain, pleura, liver, etc.

I consider all other cases curable by the employment of the above described method of both local and constitutional treatment. If it fails, it is either due to one of the above causes, or else to an imperfect execution of this method. For this latter reason it is not adapted to hospital or dispensary practice, unless special arrangements are made for such purpose.

I have employed this treatment with the same results in Boston, the West Indies, Western part of this State, and also in New York City. It requires no change of climate, machines or apparatus, of any kind. Previous to 1869, I treated any patient presenting himself, regardless of diagnosis or conditions; my rate of cure, to those of death then stood 40–60. Since 1870 I have changed my plan, and select only such cases as promise a possibility of cure. Doubtful cases I take on trial for about two months; if they do not reach a precalculated standard, I advise them to desist from further attempts at cure by my method. The consequence of this has been, that since that time, with almost nothing but so-called hopeless consumptives on my hands, I have not lost a single case.

The average time required for a lung to calcify is about six to twelve months. My first case required thirteen months. The shortest arrest ever reached was in the case of the wife of a lawyer in Rochester, N. Y., transferred to me by Dr. Kuichling, which required only six weeks, after resisting the usual modes of treatment for two years. This, however, was an entirely uncomplicated case of tuberculosis of only two years' standing.

This method requires the strictest attention and management, as well as a great deal of patience and endurance on the part of both physician and patient. They are required to keep a book from day to day in which pulse, meals, excretions, and general symptoms are daily noted. This keeps them attentive, and allows an easy review of the case at any time. They go out-doors in any kind of weather, and at all seasons, without extra precaution, and I *never* knew one to be injured by so doing. In fact, I require them to go out. All symptoms of febrile paroxysms, night-sweats, and sleeplessness soon disappear without the use of quinine, sulphuric acid, tannin, ergotin, or any other drugs; neither do I use any morphine. The patients must get stronger every day, the pulse and temperature tend towards normality; otherwise things are not progressing as they should. The condition of a patient dismissed as cured is as follows:

1. Percussion remains about the same, sometimes more tympanitic.

2. Auscultation denotes sharper respiration in the

parts affected; expiration distinctly audible. No râles or crepitation.

3. Pulse and temperature are normal.

4. Strength greatly increased, without gain in weight to any considerable extent; muscles hard and powerful.

5. Voice is clear, strong and enduring.

6. Patients present no outward symptom of sickness, and are fully capable of following their usual avocation or business.

7. As yet I never knew any of them to exhibit symptoms of returning lung affection; they, however, are advised to keep up their exercises.

8. Cough entirely ceases, and is the last symptom which disappears.

I have in my possession only one pathological specimen of lung treated by the above method. This case was under my treatment nine months, when he withdrew, without my consent. He gave up treatment in 1861. In 1863 he remarked to me that he could never have had consumption, but that his case must have been one of bad dyspepsia. In 1864 he died from tubercular affection of the lymphatics of the mesenterium. His lungs contained fifteen incapsulated caverns, and show the effect of the treatment to the naked eye, although they have been in alcohol all that time. I only saw him again three weeks before his death, which was caused by exhaustion from five months of diarrhœa.

As will be perceived, this method of treatment has no specific character, but consists rather of a chain of manipulations and procedures which, linked together, have for their aim a reanimation of cellular activity generally. There can be no doubt but that any organism has the strongest tendency to preserve itself, and if we support this we are able to achieve results which sometimes overreach the most sanguine expectations; at least such has been the case in my practice. I look upon cough as the natural tendency to clean and refill the lungs with air; upon fever as the tendency of the whole cellular vitality to recover its balance. Neither is an enemy to the organism, but only a symptom of cellular activity and vitality, and disappear as soon as its natural purpose has been accomplished.

More minute details than here given may be found in previous papers on this subject, viz.:

Medical Record of Sept. 1st. 15th, Oct. 15th, and Dec. 15th, of 1868..

Journal of the Gynecological Society of Boston of Sept., 1869, p. 162; Oct., p. 215, and Dec., p. 356 (on classifications of blood-poisoning), June and July Nos. of 1871 (on anatomy and classification of lung disorders, with cuts).

Schmidt's Jahrbuecher, Leipzig, 1871, No. 1. p. 124.

Oestreichische Zeitschrift für practische Heilkunde, Vienna, No. 9, 1871, and No. 14, 1872.

13 E. Thirtieth Street, New York.

Progress of Medical Science.

Locomotor Ataxia.—M. Charcot insists that it is wrong to speak of the loss of co-ordinating power as the fundamental symptom of locomotor ataxia, or, as he prefers to call it, *tabes dorsalis*. In many cases this loss of co-ordinating power does not appear until five, ten, fifteen, or twenty years after the cerebral symptoms, the shooting pains, the enteralgic attacks, and sometimes the arthropathics have made their appearance. His own researches and those of his pupils have demonstrated that the sclerosis of the posterior columns, the characteristic lesion of locomotor ataxia, co-exists with the manifestations of shooting pains before the co-ordinating power is impaired. The disease cannot, therefore, at that time be said to be in a prodromal stage; it is really an existing disease. Moreover, ophthalmoscopic examination of tabetic patients who are afflicted with amblyopia or amaurosis reveals a pearly aspect of the papilla, a progressive atrophy, from which alone, even if all other symptoms be absent, the diagnosis of locomotor ataxia in process of evolution may be made. Like Trousseau and Duchenne, M. Charcot believes that locomotor ataxia, when subjected to proper treatment at an early period, may be cured or be arrested in its course, or will at least prove less rebellious to treatment. Hence the great importance of recognizing the disease as early as possible, before the loss of the co ordinating power.—*Gazette Médicale de Paris*, Dec. 16, 1876.

Opinions on the Embolic Theory of Chorea.—Dr. J Hughlings Jackson, of London, adduces a few facts in reply to Dr. Barnes, who claims that the embolic theory has been destroyed by Ogle, Dickinson, Bristowe, and others. Though in a large number of brains examined by eminent physicians and pathologists, no "discoverable emboli were in the small vessels," they may still have existed—in fact, he claims that Dr. Dickinson did discover constant morbid appearances, which were like those produced by emboli, if regard was had to the size of the arteries plugged. Tuckwell, however, found emboli, and Bastian saw plugging in three cases, and regarded them as instances of thrombosis. It is possible, Dr. J. adds, that this latter hypothesis may supersede that of embolism.

Dr. Mackenzie, of London, has at present a case of chorea under his charge, which he believes throws light upon the relation of embolism and chorea, as cause and effect.

The mother had valvular disease, followed by paralysis, which was regarded as certainly due to embolism of the middle cerebral artery. The child has valvular disease, and, upon the death of the mother, the emotional excitement was followed by an attack of chorea, which might be explained by the vascular excitement causing vegetations and coagula to be swept off from the mitral valve. The muscular area affected by the choreic movements was the same as that affected by the mother's paralysis, viz., the area of distribution of the middle cerebral artery. As, however, to the query, why should the same cause in one instance produce hemiplegia and the other hemi-chorea? it is answered, that in the one case a large artery was plugged and the nutrition of the nervous matter so seriously affected as to completely deprive it of its functions; while, in the other case, only the smaller branches or arterioles were blocked, no necroses of nervous matter ensuing, but merely impaired or altered nutrition, leaving an unstable condition of the nerve matter and its result, spasm.—*British Medical Journal*, December 23, 1876.

The Treatment of Psoriasis by Chrysophanic Acid.—The rebellious nature of psoriasis, under most forms of treatment, gives especial interest to the following communication: Mr. Squire, of the British Hospital for Diseases of the Skin, records two cases, in which he appears to have been remarkably successful. The remedy is said to be used in India for ringworm; at least the goa-powder is recommended for that purpose, and it contains, according to Sir J. Fahrer's analysis, 85 per cent. of chrysophanic acid. The cases are as follows: A clergyman, aged 53, presented

patches of psoriasis, which had existed for years all over his face and body. Neither arsenic nor medicines of any kind were given, but an ointment of the acid. After six applications he appeared to be completely cured, and so speedy and satisfactory a result he does not appear to have ever attained before, either by the use of arsenic, or Harrogate, Aix-la-Chapelle, or other waters. The ointment is of a light golden yellow color, without smell, while the common tar ointment is sticky and smells strongly. Another patient, a woman of thirty, was successfully treated by the goa-powder ointment in the strength of three drachms to the ounce (about nine times the strength used in the tropics).

After a week's use of the remedies, without any other whatever, she was rid of nearly every one of the patches. The remedy in this case, however, was pushed hard, and after the seventh day she had a burning sensation in the skin, so that treatment was suspended. All the patches were quite white and smooth. This piebald appearance, resembling the markings of leucoderma, would, Dr. S. thinks, disappear in a few days.—*British Med. Journ.*, Dec. 23, 1876.

Milk Diet in Bladder Disease. — Dr. George Johnson, of King's College Hospital, in a recent lecture, alluding to the use of an exclusive milk diet in various forms of disease, such as chronic diarrhœa and dysentery, typhoid, and acute albuminuria, instanced some cases of bladder trouble in which amelioration followed rapidly after the free and almost exclusive use of milk. A young lady of seventeen had suffered for many months from severe attacks of pain over the bladder, so that during a period ranging from two to five hours, she would pass water every two, three, or five minutes. Opium pills and hot hip-baths afforded only temporary relief. Oysters or fish always brought on an attack. Her urine was acid, and contained pus. She was advised to try a milk diet exclusively, the use of hot hip-baths at night, and occasional opiates, which thus far were the only remedies that had given her relief. She also took some pills containing camphor and the extract of henbane. About nine months afterward she was fully restored to health, and the urine was perfectly normal, though she was liable to relapses, and then, upon resuming the exclusively milk diet for twenty-four hours, was again restored to her usual good health. Two other instances are given in which milk alone was given for chronic cystitis, and no other medicine whatever. In each case the cure is recorded as absolute; and, after one case, the patient was able to resume ordinary plain fare and drink his wine at dinner as usual. The milk is to be taken cold or tepid, and not more than a pint at a time. With some persons the milk agrees better after it has been boiled. If the milk be rich in cream and cause heartburn, headache, diarrhœa, etc., the cream may be partially removed by skimming. The cream, however, overcomes the tendency to constipation. Dr. Johnson thinks that the milk diet will be made use of by surgeons who are contemplating lithotomy or lithotrity, so as to lessen, as much as possible, the inflammation and catarrh resulting from the mechanical irritation of the mucous membrane of the bladder.—*Lancet*, Dec. 6, 1876.

An Epidemic of Contraction of the Extremities. —Prof. Jules Simon reports the following interesting facts: Early in October of last year an epidemic of contraction suddenly broke out in a school for little girls, situated in the rather damp and unhealthy village of Gentilly. No cases occurred in an adjoining school for boys, or in two neighboring boarding-schools. The contractions came on suddenly, were preceded by formication, and accompanied by severe muscular pains at a distance from the point of contraction, and lasted several hours. In many cases both hands were affected, in some the feet were affected, and in rare cases the affection was unilateral. The flexed fingers could be straightened by the use of force; but this increased the pain. Sensation was not affected. The general condition of the children affected remained good. On one day twenty-eight little girls suffered from the contractions.

The affection could not have been a simulated one. The children, who were all only about ten years of age, could not have remained voluntarily for hours in such a condition, and would have been unable to describe the formication and the pains at a distance from the point of contraction. The transitory nature of the phenomena, and the absence of paralyses and of disturbances of sensation, show that the contraction was not symptomatic of an anatomical lesion of the nervous system. The malady was evidently essential in its nature, and the limitation of the cases to one school indicates that some of the cases might have been caused by contagion and irritation. This is the more likely, as the inhabitants of the village were greatly frightened by the epidemic. They thought it was due to a supernatural cause, to the maledictions of some teachers, who had formerly taught in the village, but had been obliged to leave. In consequence of the rapid spread of the epidemic the school was closed, and from that time no new cases occurred. The children already affected recovered rapidly under the influence of simple isolation at home.—*Gazette Médicale de Paris*, December 2, 1876.

Arnold on the Plasmatic Channels in Connective Tissue.—There has been so much discussion of late on the permeability of vascular walls and the relation between blood-vessels and serous spaces, that Professor Arnold, of Heidelberg, has undertaken a new series of experiments to clear up some of the obscurity that covers these matters. The generally accepted fact that both white and red blood corpuscles, together with granular matter, escape from the vessels, both in health and in inflammation, was not questioned, but the object sought was to determine the paths they pursue outside the vessels and the openings through which they make their exit. A series of injections were done, upon both living and dead animals, with various soluble and insoluble substances, such as the indigo sulphate of soda, Berlin blue, soluble starch, and sepia. They all led him to the same conclusion, that in the serous membranes, the skin, the subcutaneous connective tissue, the fasciæ, tendons, and cornea, there are paths which are capable of being injected by the way of the blood-vessels. He also thought it was evident that the cells of connective tissue were colored by the injected matters, and that the paths represented spaces lying in the intervals between the connective-tissue bundles, and they were connected with the blood-vessels and lymphatics by delicate processes which entered the vessels in the intervals between the endothelial cells. He accordingly rejects the idea that the connective-tissue corpuscles represent a hollow system of plasmatic channels. The corpuscles rest upon the connective-tissue bundles, to which they are firmly attached on one side, while the other side is turned towards the serous channels. These views, therefore, correspond very closely in many respects with those originally advanced by Recklinghausen.—*Archiv f. Path. Anat.*, lxviii., 4, 1876.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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SANITARY CARE OF SCHOOL CHILDREN.

The discussion of the question of the sanitary care of school children promises to result in some good. Two bills are now before the State Legislature, one fixing the minimum age of scholars at six years, the other advocating the creation of the office of Medical Superintendent. Both measures commend themselves to reformers as necessities. It is well known that our public schools are overcrowded. Especially is this the case in our primary departments, in which children of all ages are assembled, from four years and upwards. With our foreign population such schools are looked upon more as nurseries than as educational establishments. As soon as a child can talk, can be taught to sit still, and can be made to go through with the barbarously contrived calisthenics, it is sent to the nearest primary to spend the better part of the day. Aside from the great injury inflicted upon such children by such forcible confinement, and by insufficient ventilation, they occupy places which rightfully belong to older ones. The passage of a law fixing the age of admission to a more reasonable limit than at present prevails will operate for good in two ways: directly upon the infants whose tender age unfits them for school exercises; and indirectly upon those who have a right to attend, but whose chances for being benefited mentally and physically are diminished in proportion to the crowded state of the school-room. The importance of any bill having for its object such reforms cannot be lightly estimated, and deserves the active support of every physician throughout the State.

In regard to the necessity of organized and authoritative sanitary inspection of our schools, we have said so much that it seems hardly necessary to do more than congratulate ourselves upon the prospect before us. The voice of the profession has at last been heard in the legislative halls, and the chances that its earnest advocacy of the measure may be successful are reasonably good. The arguments in its support are so strong that they have only to be properly presented to insure conviction in the minds of our law-givers and bring about the long wished-for result. As a significant omen, we are pleased to know that the Board of Education, far from offering any opposition to either bill, has at least consented to give both its unqualified approval. So far, then, the outlook is promising, and the labors of the active agitators of reform may not be in vain.

ABOLITION OF THE OFFICE OF CORONER.

At a recent meeting of the Municipal Society, a report was made upon the "duties and abuses of the coroner's office," in which it was recommended that the said office be abolished. This is certainly a bold movement, but one for the making of which there appear to be the best of reasons. As an office which has been monopolized by politicians and managed entirely in the interests of party organization, it is not difficult to understand that gross abuses of power and privilege are the result. The coroner's duties, as defined by law, are, first, a medical inquiry as to the cause of death; and, second, a judicial inquiry as to the perpetrator of the crime. Not only are these duties widely different in their nature, but their discharge involves the highest amount of discretion and the greatest appreciation of the responsibilities involved. How far they fall short of the actual purpose and intent of the law, we all know.

The manner in which these duties are performed is thus referred to by Dr. Stephen Smith, who makes the report:

"We find that the certificates of death by coroners are largely in excess of the actual number of deaths by violence. In 1873 there were 2,546 of these certificates, and but 1,161 deaths from violence, and the other 1,385 needed only a proper medical examination to determine their nature, and most of them were not reasonably suspicious in their nature. Another method of increasing inquests is, where a number are killed by a common casualty, to hold inquests on each body."

In commenting upon the necessity of improving the present practice, Dr. Smith very properly said that "nothing could be done properly without scientific knowledge accurately obtained by persons properly qualified. This duty should be performed by the Health authorities. It had been demonstrated that scientific investigation would detect the cause of obscure murders, and a systematic mode of ascertaining the cause of doubtful cases of death should be established. The present defective and corrupt system should be swept away, and a better one substituted. The Board of Health should ascertain, in the first instance, the cause of death, and the Police Justices should be given power to supplement this action when necessary in suspected criminal cases. In doubtful

cases an attorney should accompany and aid the medical officer, and the body be removed to Bellevue for a thorough examination. The coroner's jury should be abolished. A provision of the State Constitution creating the office of coroner existed, and a proper amendment should be made."

To this end the following resolution was unanimously adopted:

"*Resolved*, That the Judiciary Committee take the necessary steps to secure the passage through the Legislature of an amendment to the Constitution abolishing the office of coroner in cities of upward of 10,000 inhabitants."

The gross abuses connected with the office of coroner it is not necessary to detail. They are patent to every one acquainted with the manner in which inquests are usually carried on. The latitude allowed these functionaries affords them almost unlimited opportunity for the exercise of individual discretion, bribe-taking, and every other species of official corruption common with men of indifferent morals and low instincts. We are not surprised to learn that some of these officers have made fortunes with what they call legitimate fees, and that they are willing to spend large sums to secure an election. But even allowing assertions in regard to these points to be unfounded, we have the strongest argument in favor of abolishing the office, in the fact that there already exists in our larger cities, especially in New York, all the necessary machinery for the proper performance of its duties with little or no extra pecuniary tax upon the citizens. The best of arguments, however, fail when weighed against political expediency. Our best hope in the success of the project is the sensible recommendations which are made by the committee, and the temperate and judicious means taken to secure the end.

Reviews and Notices of Books.

THE THEORY AND PRACTICE OF MEDICINE. By FREDERICK T. ROBERTS, M.D., B.Sc., M.R.C.P., Fellow of Union College, Assistant Physician and Assistant Teacher of Clinical Medicine at University College Hospital, London, etc., etc. Second American Edition. Philadelphia: Lindsay & Blakiston. 1876.

WHEN the first edition of this work appeared we took occasion to speak of it in the highest praise. We are not disappointed to find that another edition has been called for, and that the author has been encouraged to make it even more worthy of appreciation by the profession. The original plan, already sufficiently presented to our readers on a former occasion, has been adhered to, while many of the articles have been almost entirely rewritten. The printing of the volume in one-sized type is a recommendation in its favor for easy reading and less confusion in the separation of what appear to be notes from the original text. An entirely new chapter has been introduced on the diagnosis of acute specific diseases, in which is given an elaborate and carefully prepared diagnostic table of the principal fevers.

NOTE ON THE ADMINISTRATION OF PHOSPHORUS. By EDWARD M. SQUIBB, M.D. Abstract from the Proceedings of the American Pharmaceutical Association for 1876.

A STABLE and uniform preparation of pure phosphorus has long been a desideratum. This demand has stimulated Dr. Squibb to researches which have resulted in a stable solution of phosphorus in cod-liver oil, having a strength of one part in a hundred. The details of its preparation are contained in the pamphlet under notice, a perusal of which will well repay any one who uses, or proposes to use this powerful and, heretofore, very uncertain and treacherous agent. Solutions in vegetable oils, which have been used to a considerable extent by the profession, are liable to lose their strength by oxidation, or, as sometimes happens, to undergo changes which lead to the formation of bodies much more active and poisonous than phosphorus itself. The "Note" also contains a formula for dispensing the phosphorized oil in a solid form.

PUBLIC HEALTH REPORTS AND PAPERS, Vol. II. Presented at the Meetings of the American Public Health Association, in the years 1874 and 1875. New York: Hurd & Houghton. 1876. 8vo, pp. 552.

SINCE its organization, in 1872, the American Public Health Association has been singularly fortunate in developing an interest in the discussion of sanitary and social problems, not only among its members, but with the public at large, which, we may safely say, is unparalleled in any similar undertaking. Although composed of a mere handful of earnest, thoughtful, and persevering workers, it has succeeded in keeping alive an interest in the great work of reform, which is the surest prospective of even more increased and widespreading influences. We are reminded of an obligation to tender renewed congratulations upon the success of its more recent doings, by the recent appearance of a large, valuable, and handsomely printed volume of transactions, being the second in the series. As the title indicates, this work contains the reports and papers presented to the Association during the years 1874 and 1875, together with which is a record of the proceedings from its organization in 1872 to the close of 1875. It is impossible to review the contents of the book in detail, but it is sufficient to say, in commending its perusal to our readers, that all the articles are of an unexceptional value. The subjects are divided under the following general heads: I. Public Health, Care and General Physical Conditions relating to Hygiene. II. Educational, Social, and Physiological Subjects affecting Public Health. III. Sanitary Engineering, Drainage, Sewerage, and Cleansing. IV. Hospitals, Sanitary Care of Contagious Diseases. V. Reports on Yellow Fever. VI. Public Health Laws and Sanitary Administration. The authors of papers upon subjects classified under these headings comprise the first men in the country, in their respective departments—physicians, clergymen, engineers, and educators.

OPHTHALMIC and OTIC MEMORANDA. By D. B. ST. JOHN ROOSA, M.D., Professor of Ophthalmology and Otology in the University of the City of New York; Surgeon to the Manhattan Eye and Ear Hospital; and EDWARD T. ELY, M.D., Assistant to the Chair of Ophthalmology and Otology, University of the City of New York; Attending Surgeon to the Class of Eye and Ear Diseases, Eastern Dispensary. New York: William Wood & Co. 1876.

THIS little manual should be in the hands of every student and practitioner, for it will be found to be one of the most convenient books for reference that

has been produced. Its contents are systematically arranged. It is divided into two parts, and each part is divided into three chapters. It has a bibliography, a glossary, and an index. It is concise, and yet sufficiently comprehensive to be almost entitled to the name of treatise.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Diseases of the Peripheral Cerebro-Spinal Nerves. Vol. XI. By Prof. Wilhelm Heinrich Erb of Heidelberg, Baden. Translated by Mr. Henry Power, of London, England. Albert N. Buck, M.D., New York, Editor of American Edition. New York: William Wood & Co., 1876.

The larger portion of this volume of 608 pages is devoted to functional disorders, or neuroses of the peripheral nerves. The advances that have been made of late years in neuropathology have, according to the author, been mostly in the collection of clinical data, and not in the discovery of morbid changes in the nerve structures themselves.

Indeed, the affections that are held to have a definite lesion are so few that the description of them occupies only about 35 pages. They are classified under the headings of hyperæmia, inflammation, atrophy, hypertrophy, and neoplastic formations.

Under the functional disorders are noted neuralgias in general; neuralgias of special nerves, and anæsthesias, neuroses of the nerves of special sense, and neuroses of the motor nerves, under which head come spasms, cramps, tetany, contractures, general and special paralyses.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Diseases of the Chylopoëtic System, together with Chapters on Diseases of the Naso-pharyngeal Cavity and Pharynx, Laryngitis Phlegmonosa, Perichondritis, Laryngea, Ulcerations and Tumors, and Neuroses of the Larynx. Vol. VII. By Prof. Hermann Wendt, of Leipsig; Prof. W. Leube, of Jena; Dr. O. Leichtenstern, of Tübingen; Prof. Arnold Heller, of Kiel; Prof. H von Ziemssen, of Munich; and Dr. A. Steffen, of Stettin. Translated by Arthur V. Macan, M.D., of Dublin; Edward W. Schauffler, M.D., of Kansas City; A. Brayton Ball, M.D., and Lewis A. Stimson, M.D., of New York; and J. Solis Cohen, M.D., and Arthur Van Harlingen, M.D., of Philadelphia. New York. 1876.

This volume is not strictly devoted to the chylopoëtic system, as may be inferred from the above title. Indeed, there are no less than 334 pages devoted to other subjects, belonging more strictly to the preceding number. The remaining pages are devoted to Disorders of the Stomach and Intestines, by Prof. Leube; and Constrictions, Occlusions, and Displacements of the Intestines, by Leichtenstern. There is also an article on Intestinal Parasites, by Heller. The contributions of Leube, Heller and von Ziemssen are unusually readable, and as numerous excellent woodcuts accompany them, the volume is made very attractive. The German editor seems to have been remarkably fortunate in securing for these three volumes the assistance of writers and teachers so widely and favorably known.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Diseases of the Circulatory System, together with Chapters on Whooping-Cough, Diseases of the Lips and Cavity of the Mouth, and Diseases of the Soft Palate. Vol. VI. By Prof. Rosenstein, of Leyden: Prof. Schroetter, of Vienna: Prof. Lebert, of Vevay; Prof. Quincke, of Berne; Dr. Bauer, of Munich: Dr. Steffen, of Stettin; Prof. Vogel, of Dorpat, and Prof. Wagner, of Leipsig. Translated by George W. Balfour, M.D., of Edinburgh: Edward G. Geoghehan, M.D., of London: Thomas Dwight, M.D., of Boston; J. Haven Emerson, M.D., and George G. Wheelock, M.D., of New York; and J. Solis Cohen, M.D., of Philadelphia. New York. 1876.

Diseases of the heart form the subject of the first 342 pages, and are treated by Rosenstein, author of the "Pathology and Therapeutics of Kidney Diseases;" Schroetter, the well-known Laryngoscopist of Vienna; and Lebert, the author of "Physiologic Pathologique," also a contributor to the first volume of this series. The subject is exhaustively treated. Quincke follows with Diseases of the Arteries, Veins, and Lymphatics; and Bauer, with Diseases of the Pericardium. Vogel, the author of a Manual of Diseases of Children, after sketching the diseases of the lips and cavity of the mouth, gives a short chapter on Angina Ludovici, which is rather new in text-books. Wagner closes the book with an account of the diseases of the soft palate. In discussing the nature of croupous and diphtheritic lesions, he differs diametrically from Oertel, Hueter and others, asserting that the parasitic evidence of diphtheria rests upon weak evidence, and that the specific poison of the disease is still entirely unknown.

Modern Therapeutics: A Compendium of Recent Formulæ, Approved Treatment, and Specific Methods in Medicine and Surgery, etc. By George H. Napheys, A.M., M.D., etc. Fourth edition. Rewritten and enlarged. Philadelphia: Dr. G. Brinton. 1877. 8vo, pp. 609.

The very comprehensive title of this work is singularly applicable to its character and value. The writings of Dr. Napheys have always been distinguished by the features of practical worth and by appreciation of the wants of busy workers in the departments of preventive and curative medicine. We are truthfully informed in the preface that the volume differs from ordinary works on the practice of medicine in being devoted *exclusively* to practice; that is to say, the various diseases are discussed only with reference to applicable treatment. To give the greatest value to suggestions under this head, numerous favorite prescriptions of practitioners of this and other countries are introduced. The untimely death of the author, when the work was but one-third through the press, threw the responsibilities of its completion upon Dr. Brinton, of Philadelphia, to whose skill, discrimination, and learning is due its very satisfactory completion The present edition is very much increased in size over its predecessors, and bids fair to become proportionably popular with the profession. As a handbook of therapeutics, pure and simple, it is invalnable to every practising physician.

Port-wine Mark, and its Obliteration without Scar. By Dr. Balmanno Squire, Surgeon to the British Hospital for Diseases of the Skin. London: 1876.

This pamphlet describes a new method for the cure of this deformity. Briefly it is as follows: "Freeze the part (by the ether spray apparatus), then scratch it with an ordinary cataract needle in parallel lines, about one-sixteenth of an inch apart; then place a piece of blotting-paper on it before it has thawed, pressing the paper firmly on the scratched skin for five minutes. Next day repeat the operation, if necessary, the lines being in an oblique or transverse direction to the origi-

nal scratches." The scratches need not divide the entire thickness of the skin. The part must be well frozen, both that the operation may be painless and to avoid any hemorrhage. In applying the blotting-paper, the pressure should be absolutely perpendicular to the surface, for if the slightest lateral traction be made, the miniature incisions will gape slightly, and so become plugged with minute wedge-shaped clots of blood, with resulting indelible linear scars. After relaxing the pressure, the paper should be allowed to remain for at least half an hour. Then it should be thoroughly wetted and gently removed, traction being made in the same direction as the incisions, so as not to tear them open. The thin clot of blood covering the part after removal of the paper should be gently washed off with a camel's-hair brush and cold water, then a film of glycerine should be carefully applied.

Dr. Squire claims that "no scar whatever remains; the deformity has vanished, as if charmed away by incantation; and the patient is cured, absolutely and certainly, for the rest of his life, within a fortnight after the efficient performance of this simple operation." It seems to us that this plan of procedure should have a fair trial by the profession.

THE FUNCTIONS OF THE BRAIN. By DAVID FERRIER, M.D., F.R.S., Member of the Royal College of Physicians, etc., etc. With numerous illustrations. New York: G. P. Putnam's Sons, 182 Fifth Avenue. 1876.

DR. FERRIER, whom we all recognize as having brought order out of chaos in the question of cerebral localization, presents us with his first book, and in fact it is about all we have in the English language upon the subject of cortical centres, with the exception of scattered articles in the medical journals. He is one of the majority who believe in the existence of cortical centres, and with him are gathered Hitzig and Fritsch, Hughlings Jackson, and others; while, on the other side, Brown-Séquard, Dupuy, and several of the French school violently oppose them. Ferrier's experiments were chiefly made upon the monkey, an animal which has proved himself to be of much value to the cerebral physiologists.

Dr. Ferrier has detailed a long series of experiments, all of them of the most interesting character. He first considers the anatomy of the cerebro spinal centres, and, beginning with the reflex functions of the cord, passes to the discussion of phenomena which follow disease or removal of certain important parts of the cerebellum and cerebrum. The remarks upon the pathology of Ménière's disease, and the various modifications of visceral impressions and their relation to this form of auditory vertigo, are well considered. By far the most interesting parts of the book are chapters vii., viii., x., and xi. We have here a full discussion of the question of cerebral function, and the chapters under discussion are conspicuous for their clear, simple, and connected presentation of the subject. Our author, for the first time, details experiments in regard to the centres of smell and taste. On page 290 a most admirable diagrammatic explanation of the nervous centres is given.

In these days of constant change it is difficult to keep pace with the advances of cerebral physiology. When such men as Brown-Séquard present a theory one day, and change it almost the next, there is a great deal to render our study discouraging.

Ferrier's book, with its simple style and logical reasoning, really forces us to believe that after all there is something definite in the study of the nervous system.

CHEMISTRY, GENERAL, MEDICAL, AND PHARMACEUTICAL, including the Chemistry of the U. S. Pharmacopœia, etc. By JOHN ATTFIELD, Ph.D., F.C.S. Seventh edition. Philadelphia: H. C. Lea.

THE seventh edition of this excellent little manual is sufficient attest of its popularity and utility. Its value lies in the practical character of its directions for chemical manipulation; and, in these days of advanced pharmacy, it should be kept for reference by every person engaged in the compounding of drugs.

CHEMIA COARTATA, or the Key to Modern Chemistry. By A. H. KOLLMYER, A.M., M.D. Philadelphia: Lindsay & Blakiston.

A CONVENIENT little book for reference. Well-arranged and condensed tables, giving the symbols, names, and synonyms, tests, mode of preparation, etc., of various inorganic and organic substances from the bulk of the book; and a table of poisons, with antidotes and treatment is added, together with directions for the conversion of different weights. The table of poisons is somewhat indefinite, and several false statements and omissions are made.

PRINCIPLES OF HUMAN PHYSIOLOGY. By WILLIAM B. CARPENTER, M.D., F.R.S., F.G.S., etc. Edited by HENRY POWER, M.B., London, F.R.C.S. American Edition, with Notes and Additions by Francis G. Smith, M.D., Prof. of Institutes of Medicine in the Univ. Penn., Fellow of Coll. Phys., etc. Philadelphia: H. C. Lea. 1876. 8vo, pp. 1083.

IT is only within the past few months that we had occasion to notice the last London edition of this popular work, and now it comes to us in a somewhat different shape as an American edition, with "such additions as seemed advisable to supply the material which has accumulated both in Europe and in this country since the publication of the English edition." In speaking of the work as an American edition, we have only to assure our readers that Prof. Smith has evidently done his utmost to fulfil the expectations of every progressive student of physiology.

A PRACTICAL TREATISE ON THE DISEASES, INJURIES, AND MALFORMATIONS OF THE BLADDER, THE PROSTATE GLAND, AND THE URETHRA. By S. D. GROSS, M.D., LL.D., etc. Third Edition, revised and edited by Samuel W. Gross, A.M., M.D., Surgeon to the Philadelphia Hospital. Philadelphia: H. C. Lea. 1876. 8vo, pp. 565.

THIS is an old work, which has been out of print for many years, rejuvenated by the author's son, who has rewritten the greater portion of it. Comparing this with the former edition, the omission of the descriptive anatomy of the urinary organs is a noticeable feature. Altogether this is an improvement, and gives opportunity in a moderate sized volume of treating of subjects of more importance to the practical surgeon. The entirely original chapters in this edition are those on tumors of the bladder and of the prostate gland. They are well arranged, clearly written, and full of valuable information and of practical hints. As a guide for the surgeon who may be called upon to treat diseases of the genito-urinary tract, the work is fully up to the requirements of the times, and cannot fail to maintain the rank which it has earned for itself years ago.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series. Vol. II. Philadelphia. 1876. 8vo, pp. 177.

THIS is the second volume of the new series, and comprises the papers read before the College, from October, 1875, to July, 1876, all of which are of singular

interest, are written with care, and are deserving of study. The contents and scope of the volume can be obtained by the following list of contributions:

I. A case of Empyema, cured by Drainage-tube, etc., by Dr. Jas. H. Hutchinson. II. Evacuation of an Hepatic Abscess through puncture in the Abdominal Walls, by Dr. Louis Starr. III. Report of Committee on Epidemics for 1876, by Dr. R. A. Cleemann. IV. Excision of Knee-joint and Amputation of Thigh, for Disease of Knee-joint, by Dr. John Ashhurst, Jr. V. Excision of Knee in Adult, by Dr. H. Lenox Hodge. VI. Therapeutic Uses of Compressed Air, by Dr. J. Solis Cohen. VII. Note on Anatomy of Perineum, by Dr. Harrison Allen. VIII. Local Injuries of Nerves, etc., by Dr. S. Weir Mitchell. IX. Hysterical Affections of the Eye, by Dr. Geo. C. Harlan. X. Gunshot Wounds of the Thoracic and Abdominal Cavities, by Dr. W. S. Forbes. XI. Case of Calculous and Cystic Disease of both Kidneys, by Dr. J. Cheston Morris. XII. Sarcomatous Tumors, by Dr. J. Ewing Mears; and lastly, XIII. Case of Diabetes Insipidis treated by Ergot and Gallic Acid, by Dr. James Tyson.

Dr. Mitchell's article is illustrated by a beautiful chromo-lithograph and woodcuts, the latter also embellishing the articles of Drs. Hutchinson, Ashhurst, Hodge, and Mears. The volume is very tastefully printed.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 1st, 1877.

Dr. S. S. Purple, President, in the Chair.

THE RELATIONS BETWEEN PSEUDO-MEMBRANOUS CROUP AND DIPHTHERIA, AND THE VALUE OF TRACHEOTOMY IN EACH.

Dr. Austin Flint opened the discussion upon the above subject with the remark that, probably, its leading object would be to determine whether pseudo-membranous croup and diphtheria were two diseases, distinct from each other, or were essentially one and the same disease. Dr. Flint regarded them as essentially distinct diseases: 1, histologically; 2, clinically. Speaking from a histological stand-point, he was willing to concede that the local process in the two diseases did not involve any essential pathological difference. With that view, the question therefore was to be settled by clinical evidence; and the reasons for regarding them as essentially two distinct diseases were chiefly the following:

Pseudo-membranous croup occurred rarely except as a sporadic disease; it never prevailed epidemically.

Diphtheria prevailed as an epidemic, and was generally admitted to be a disease communicable by inoculation and by means of infectious miasm.

Pseudo-membranous croup occurred only rarely before two, and almost never after seven years of age.

Diphtheria attacked persons of all ages not infrequently.

Pseudo-membranous croup was a local disease, and the fever which attended its progress was symptomatic—the constitutional symptoms being proportionate to the amount of fever.

Diphtheria was to be regarded as an essential fever, and the local affection was its anatomical characteristic.

The question of the presence or absence of micrococci was purposely passed.

In pseudo-membranous croup death occurred by apnœa.

In diphtheria death occurred by asthenia, often without laryngeal affection.

Pseudo-membranous croup was not accompanied, both with regard to degree and extent, by an exudation within the fauces, perhaps anterior and posterior nares, as occurred in diphtheria. The occurrence of an exudation upon the vulva, perhaps upon the anus, upon excoriated surfaces, etc., did not belong to the history of pseudo-membranous croup.

Enlargement, sometimes suppuration, of the lymphatic glands was peculiar to diphtheria. Hæmorrhages did not occur in connection with pseudo-membranous croup, nor did paralyses. Regarded from a clinical standpoint, therefore, it was no more proper to consider a case of pseudo-membranous croup as one of diphtheria than to regard a case of dysentery in which there was a plastic exudation upon the mucous membrane as diphtheria.

The discussion might be brought within narrower limits by considering whether the *laryngitis* of diphtheria differed from that of pseudo-membranous croup; in other words, was the laryngitis the same in both diseases? That question was to be answered only by macroscopical and microscopical observation. To render the investigation yet more laborious, pseudo-membranous croup as a complication of diphtheria was not of infrequent occurrence, nor was the fact of such complication inconsistent with the belief that they were distinct diseases.

With reference to the value of tracheotomy in each, two questions arose:

1. Was tracheotomy of any value in these diseases?
2. If the answer was in the affirmative, of how much value was the operation?

In answer to the first, it was maintained that some lives had been saved by the operation in pseudo-membranous croup, and the same thing could be said regarding diphtheria, although the chances of success were much less than in the former disease. It was to be regarded, therefore, as an operation having a certain value, but the amount of value was a question for secondary consideration. Dr. Flint claimed, however, that although the chance of success might be ever so small, the operation should not be withheld. It was the duty of the physician to place before the patient or the friends of the patient the fact that at the proper time, and under proper circumstances, tracheotomy was a means of saving life. The operation relieved suffering and contributed to euthanasia, and for that reason alone it was justifiable. The amount of value was to be determined only by trustworthy statistics showing the proportion of instances in which recovery followed its performance.

Dr. A. Jacobi continued the discussion by first referring to the question of tracheotomy. Of its value he was convinced, and out of sixty-eight cases which he had reported, twenty per centum of the lives had been saved, for he felt quite certain that that proportion would have died had not the operation been performed. He had performed the operation about two hundred times, and in deciding whether it should be resorted to had been guided by a single indication—namely, imminent suffocation. When his operations had been performed he had felt certain that no benefit was to be derived from the use of medicines. He did not ask how long the process had lasted; or how thick the membrane was; or whether the membrane might be expectorated in a day or two; or whether it looked yellow or white or black; or whether complications were present—pneumonia, for example—but the only

indication by which he had ever been guided had been imminent suffocation. It was the same indication which led one to cut the rope by which a person was suspended from the ceiling.

Pneumonia had been regarded as a complication contra-indicating the operation, but he had seen a case recover in which he was aware that such complication was present when the operation was performed. There were some apparent contra-indications besides pneumonia, such as great enlargement of the glands about the neck, a certain septic character of the disease, local gangrene, cutaneous diphtheria, etc. Such complications certainly impaired the prognosis, but did not reduce the responsibility upon the part of the physician, which he would incur for refusing the operation. It was true that when the septic character of diphtheria was well developed the chances of recovery were diminished. But the septic character was frequently the result of inhalation of material from the nose and pharynx, and under such circumstances the operation might be the immediate cause for improvement in the symptoms. Early age was not an objection, for one case had been reported but lately, by Dr. Winiwarter, in which the child was only ten months old, and recovered after the performance of the operation, not to speak of a number of cases under a year or two, recorded in earlier literature. There were cases in which he refused to operate, such as those in which the symptoms of exhaustion were more prominent than those of suffocation. In such cases the operation was useless and not indicated.

Dr. Jacobi then proceeded to consider some of the statements made by Dr. Flint while giving the clinical evidence, which sustained the belief that diphtheria and pseudo-membranous croup were two distinct diseases. It had been stated that paralysis did not follow "croup"; but it was for the very simple reason that very few patients sick with "croup" lived until they could become paralytic. The paralysis would not appear until the apparent recovery had been established. In diphtheria the cause for the paralysis was two-fold: it was either the result of the local affection involving the soft palate, or it was the result of diphtheritic affection of the nervous system, and which appeared at the end of the fourth, fifth, or sixth week, perhaps later. Patients sick with pseudo-membranous croup did not live so long, and most of them did not have sufficient exudation upon the soft palate to give rise to early paralysis. Dr. Jacobi admitted that the lymphatic glands did not become enlarged in croup as in diphtheria, but when the inflammation was confined to the laryngeal mucous membrane the laryngitis did not result in glandular swellings, for the reason that there was very much less of lymphatic connection between the larynx and the neighboring tissues than between the nose and pharynx and such glands. The bronchial glands might become enlarged during life in a case of croup, and had been found so.

The hemorrhages which occurred in diphtheria took place only after considerable injury to the mucous membrane and sub-mucous tissue by the deposit. Such injury did not occur so commonly in the larynx in croup, and there was no deep-seated gangrene. Thus it could not be expected that hemorrhage would occur from the larynx in croup.

It had also been claimed that there was no cutaneous complication in croup. That was true in a majority of cases; but Dr. Jacobi further stated that he had seen the wound, after tracheotomy, in cases of supposed "croup," covered within twenty-four hours with a diphtheritic exudation; and it was a fact well known that when blisters were applied in the treatment of croup the vesicated surface might become covered with a membranous exudation.

Dr. Jacobi then referred to the fact that the best histologists were unable to agree as to what was seen when examining the exudation of croup or diphtheria and the mucous membrane with which it was connected, and gave some explanation why the membrane was easily removed in some instances while in others it was of a very permanent character. Imagine that the process, whichever it might be, took place in the trachea; there the muciparous follicles were so abundant that the epithelium inevitably became elevated, lifted off, and it had been called "croupous." When we had to deal, however, with a surface beneath which there were no such follicles, especially when covered with pavement-epithelium, as upon the margin of the epiglottis, the membrane did not prove croupous, but diphtheritic, and would not be easily removed from the surface to which it was attached. A thin membrane deposited over the margin of the epiglottis would remain for a long time, whereas in those localities abundantly supplied with muciparous follicles the membrane would be lifted up and easily removed. Upon the vocal cords no mucus was secreted; there were no lymphatics present; and the membrane, when formed, lasted for a long time; no general poisoning followed, and no glandular swellings were developed. Where different results followed one and the same diphtheritic process, it was due to difference in the anatomy of the parts in which the process was located. When the process occurred upon the tonsils, it was innocent, because there was no lymphatic connection with the remainder of the system. When it occurred in the nares where the lymphatics were abundant, glandular swellings were developed in a short time, and septic disease, because absorption took place rapidly.

Dr. Jacobi arrived at the following conclusion: That croup and diphtheria were identical processes, and yet the clinical features of the two forms of disease would differ from each other. The clinical results would differ according to the anatomy of the part affected and the general symptoms which were developed in consequence thereof. There were cases of diphtheria in which the entire blood was poisoned, and yet there were but trifling local manifestations of the disease. In such cases we should not make a parallel.

Diphtheria was a general blood disease, resulting from the inhalation, in his opinion, of a chemical poison. The first symptom of the disease by which it was diagnosticated was the membrane, no matter where located. As soon as the membrane was formed, there were two causes for systemic poisoning: First, the inhalation of the original poison; second, from the maceration of the mucous membrane and absorption. The entire character of the disease was changed according to the seat and extent of the membranous deposit. As an objection to the belief that the two diseases were identical, it had been urged that there was a very marked clinical difference between croup and septic diphtheria. Dr. Jacobi believed that there was a like difference in the clinical manifestations of cases of scarlet fever. We had different types of malarial fever, etc., and why not differences in the clinical histories of cases of diphtheria? There were cases of the latter disease in which no paralysis occurred and kidney lesions were not developed. Such symptoms were not a necessity to the presence of every individual case of diphtheria any more than to the presence of what is known as pseudo-membranous croup. At all events it was unscientific to classify according to clinical symptoms and not to anatomical and histo-

logical differences. Those who distinguished between "pseudo-membranous croup" and diphtheritic laryngitis, were begging the question. They postulated differences as essential, which were but casual and clinical.

Dr. J. Lewis Smith favored the duality of these two forms of laryngitis, and based his conclusions upon the following considerations:

First: The cause. Croup is due to the ordinary cause of inflammation, namely, "taking cold," and is therefore universal (Steiner and others). The cause of diphtheria is a subtle poison.

Second: With regard to anatomical characters. Upon that point Dr. Smith remarked that he did not believe it possible to diagnosticate membranous croup, at the bedside, from diphtheritic laryngitis, in a locality where diphtheria prevailed. It was his opinion that there were cases of diphtheritic laryngitis in which there was no pseudo-membrane upon the fauces and but little tumefaction at the angles of the jaw. Some of those cases would be called croup; but the records had shown that persons exposed to such patients were often seized with the usual form of diphtheria, and without any other exposure. As evidence upon the anatomical characters of croup, the views of Rokitansky were quoted, because he had had the opportunity of studying the disease in a locality where diphtheria had not prevailed. Allusion was also made to the views of Rindfleisch and others, and the following conclusions given:

1. Any mucous surface might be the seat of croupous inflammation; but the most common location was the air-passages, and it occurred most frequently in childhood.

2. Croupous membrane consisted of altered epithelial cells held together by a protein substance. The exact chemical characters of the changes which occurred in the epithelial cells had not been ascertained. No chemical tests were known which would detect the qualitative difference, if any existed, between the exudations of diphtheria and croup.

3. The laryngitis of croup, as compared with diphtheria, appeared to be more superficial. We have seen from Rokitansky's statement, that the croupous exudation never penetrates the mucous membrane underneath. On the other hand, in three instances, recently, competent microscopists had examined, for Dr. Smith, the exudation in the larynx, in cases of diphtheritic laryngitis, and in all, the exudation penetrated and was blended with the mucous membrane, while in the trachea it was entirely distinct from the mucous surface.

4. Croup was a transient inflammation, its cause operating only for a brief period. Therefore the pseudo-membrane of croup is less likely to be reproduced than that of diphtheritic laryngitis. Rindfleisch says it never is reproduced, and we all know how quickly that of diphtheria is restored.

Mention was made of another anatomical fact, namely, disease of the kidney. In several cases of diphtheritic laryngitis he had found albuminuria from nephritis. In croup the urine was sometimes found to be albuminous—but albuminous, it was thought, only in those cases in which there was a passive congestion of internal organs, due to impeded respiration. The following clinical facts were noted as having led the doctor to embrace the doctrine of duality with reference to these diseases:

1. Croup was a local malady. Inflammatory diseases from non-specific causes are local, and why not croup? Systemic infection resulted only from the entrance or retention of some noxious principle, and there is no evidence that this occurs in croup.

2. In croup there was a single tract of continuous inflammatory exudation. If it was a systemic disease, we should expect to find, in some instances at least, the characteristic exudation upon some other surface than that of the air-passages.

3. The depression present in cases of diphtheria was lacking in croup. If croup was a constitutional disease, there should be symptoms of blood change after the malady had ceased.

4. Tolerance of depressing remedies indicated the local nature of croup.

On the other hand Dr. Smith believed that diphtheria was constitutional at the very commencement, and that the local inflammations which occurred were simply manifestations of a blood disease. His opinion was based upon the following data:

1. The long incubative period in certain instances. A week might elapse, after exposure, before symptoms of diphtheria commenced.

2. Severe constitutional symptoms, lasting for a shorter or longer period—perhaps for twelve hours—might be present before the appearance of the usual inflammation.

3. Early and repeated local treatment of the inflammation did not prevent the occurrence of symptoms of blood poisoning in all cases of severe type. Local treatment was to be used to prevent septic poisoning, but it did not prevent diphtheritic systemic poisoning.

4. The state of the kidneys afforded evidence of a constitutional malady. In certain cases of diphtheria the urine was albuminous, as soon as any of it could be obtained. That was regarded as a strong argument in favor of diphtheria being primarily a constitutional disease, whether the local manifestation was a pharyngitis or laryngitis, for the poison penetrates the system before it reaches the kidneys.

5. Diphtheria occurred at a very early age. True croup, it was believed, did not occur under the age of six or eight months—for the most part not under eighteen months; and it did not occur, as a rule, after sixteen years of age.

The question of contagiousness was regarded as important, and the fact that one was contagious and the other not was held to be strong evidence that the two affections were distinct.

Dr. Smith derived an argument from the records of the Board of Health of the city of New York in favor of the opinion that croup and diphtheria were two distinct diseases.

The statistics, during the long period from 1804, when the tables were first prepared, up to 1850, furnished no recorded death from diphtheria; but deaths from croup were recorded very frequently, being not less than sixty annually—the number in 1817—and averaging one hundred and forty seven annually during the forty-six years. Now if the croup of that period was identical with diphtheria, as diphtheria was not recognized, would there not have been a larger number of deaths annually from pseudo membranous pharyngitis than from croup, since, in a majority of those who died from diphtheria, pharyngitis was the prominent inflammation? But the fact was, that during those forty-six years all the inflammatory maladies of the throat were grouped under one head, and their aggregate was only about one-fifth as large as the number of fatal cases of croup. Did not that fact afford a strong argument in support of the belief that the croup of that period was not a form of diphtheria, but was distinct from that malady?

The discussion was continued by Drs. Billington, Peters, Post, Jacobi, and Smith.

The same subject will be discussed at the next stated meeting of the Academy.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 4 to 10, 1877.

RANDOLPH, J. F., Surgeon. Assigned to duty in Military Division of the Atlantic. S. O. 29, A. G. O., Feb. 8, 1877.

GREENLEAF, C. R., Surgeon. Relieved from duty in Dept. of the South and assigned to duty in Dept. of the Gulf. S. O. 28, A. G. O., Feb. 7, 1877.

WATERS, W. E., Asst. Surgeon. Assigned to temporary duty at Fort Columbus, N. Y. H. S. O. 29, C. S., A. G. O.

GARDNER, W. H., Asst. Surgeon. Assigned to duty in Dept. of the South. S. O. 29, C. S., A. G. O.

BUCHANAN, W. F., Asst. Surgeon. Assigned to duty in Dept. of the South. S. O. 29, C. S., A. G. O.

BENTLEY, E., Asst. Surgeon. Assigned to duty in Dept. of the Gulf. S. O. 29, C. S., A. G. O.

VICKERY, R. S., Asst. Surgeon. Relieved from duty in Dept. of the Gulf, and assigned to duty in Mil. Div. of the Atlantic. S. O. 29, C. S., A. G. O.

WILSON, W. J., Asst. Surgeon. Assigned to duty at Fort Craig, New Mexico. S. O. 22, Dept. of the Missouri. Feb. 3, 1877.

SKINNER, J. O., Asst. Surgeon. Granted leave of absence for one month. S. O. 28, Dept. of the South, Feb. 6, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending February 10, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Feb. 3.....	0	6	66	1	4	43	0
Feb. 10.....	0	2	61	3	13	48	0

DEATH OF SIR WILLIAM FERGUSSON, BART.—Sir William Fergusson, President of the Royal College of Surgeons and Sergeant-Surgeon to the Queen, died Feb. 10, in London, at the age of 69. He was born at Prestonpans, East Lothian, Scotland, March 20, 1808. He received his early education at Lochmaben Grammar School, and continued his studies in the High School and University of Edinburgh. He began his professional studies at the age of eighteen, under the noted anatomists Drs. Knox and Turner, the latter of whom occupied the chair of Surgery in the Royal College of Surgeons, Edinburgh. His progress was so rapid that in less than a year he became the confidential assistant of his learned and skilful preceptors in the preparation of their "subjects." He continued his intimate professional relations with Dr. Knox for nine years, and thus enjoyed opportunities for pursuing his favorite study—anatomy—rarely presented to the medical students of his day. He became a licentiate of the Royal College of Surgeons in 1828, and a Fellow of that corporation the year following, and in 1831 he began to lecture on the principles and practice of surgery. In 1836 he was appointed Assistant Surgeon to the Royal Infirmary, and was chosen a Fellow of the Royal Society of Edinburgh in 1839. A year later he removed to London, where he was made Professor of Surgery in King's College and Surgeon to King's College Hospital. He was chosen a member of the Council of the Royal College of Surgeons, London, and for some time was Professor of Surgery and Human Anatomy in that institution. For five years he was Examiner in Surgery at the University of London, and was chosen member of most of the medical and scientific societies of Great Britain, being a Fellow of the Royal Society of Great Britain, Vice-President of the Royal Medico-Chirurgical Society, a Fellow of the Obstetrical Society, and President of the Pathological Society. At the time of his death he was President of the Royal College of Surgeons. He was also Consulting Surgeon to the Hospital for Consumption and Diseases of the Chest, to the British Home for Incurables, to the Hospital for Diseases of the Throat, to the Scottish Hospital, to the Caledonian Asylum, and Honorary Surgeon to the St. George's Hospital. He was also Surgeon Extraordinary to the Queen. Among his works he has left *A System of Practical Surgery*, and *Progress of Anatomy and Surgery in the Nineteenth Century*, which was published in 1867; besides special papers on Cleft Palate, Lithotomy, Lithotrity, Excision of Joints, Aneurism, and other subjects.

SMALL-POX IN LONDON.—The continued prevalence of small-pox in London has invited attention to all questions connected with its prevention and cure. Revaccination is urged, and every precaution is taken by the Government to prevent the spread of the disease, and the establishment of special hospitals is strenuously advocated. The Registrar General has requested practitioners to state in their certificates of small pox cases if the subject has been vaccinated, and at what age. The test which will be recognized as trustworthy is the presence of an undoubted scar in the usual situation. A majority of the public is reported as objecting to revaccination, on account of the danger of syphilitic contamination, and efforts are being made to introduce bovine virus.

UNIVERSITY OF VERMONT, MEDICAL DEPARTMENT, AT BURLINGTON, VERMONT.—Miss Fletcher, of Burlington, has recently donated $75,000 for the building of a hospital, and $100,000 for the endowment of the same. The hospital will be the first institution of the kind in that State. This will give an opportunity for clinical study in connection with the College course, not enjoyed by any similar institution outside of our large cities.

DR. D. TILDEN BROWN.—We regret to learn that the health of Dr. Tilden Brown, the accomplished Medical Superintendent of the Bloomingdale Asylum, is in such a precarious state as to necessitate his absence abroad for an indefinite period.

INFECTIOUS DISEASES.—We observe that the recent order of the Health Board, regarding the publication, with the funeral notices, of infectious diseases of which patients have died, is quite generally observed. No measures have as yet been taken to prevent the bodies of children, dead with scarlet fever, etc., from transportation in hearses instead of ordinary coaches.

COLLEGE COMMENCEMENTS.—The Commencement of the Medical Department of the University of the City of New York, will take place on the evening of the twentieth, at the Academy of Music; and that of the Bellevue Hospital Medical College at the same place, on the afternoon of the twenty-first.

Original Lectures.

EXAMINATION FOR LIFE INSURANCE.

By WILLIAM DETMOLD, M.D.,

EMERITUS PROFESSOR OF CLINICAL AND MILITARY SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

(Phonographically reported for THE MEDICAL RECORD.)

LECTURE III.

GENTLEMEN:—In the previous lectures we have spoken briefly of general principles which should guide the medical examiner in making his examinations for life insurance. We come now to the examination of the applicant in detail. Of course, an impression has been made by your general survey, but such general impression is sustained or overthrown by details, and the experienced man takes in the whole. We will begin with

THE HEAD.

A man comes to you with very thin dry hair, which looks moth-eaten, and almost all the hairs are split at their ends; that does not show a vigorous constitution. A bald head and white hair are perfectly unobjectionable if they come in years; but if they come prematurely, if a person says he is thirty years of age and has a bald head and white hair, there is some sign of early decay. These things are brought about either in consequence of want of vital power or they may be the result of excesses. Therefore, in their time they are all very respectable, but before their time they are not desirable. If there is a family predisposition to gray hair early in life, and the family history shows that the members have been long-lived, the fact of having gray hair is not objectionable. You will then examine the *scalp*. Determine whether there are any adherent scars. Such scars will result from ulceration and they are mostly of a syphilitic character. They may result from injuries. Adherent scars from syphilis show that the system has been affected by the poison; adherent scars from injuries lead to the suspicion that the inner table of the skull has been injured, and that subsequent trouble may be developed in the way of epilepsy. You will occasionally find gummatous swellings upon the scalp; not very prominent, rather diffused, which give a slight sense of fluctuation, and are painful. Such swellings belong to the lesions of secondary syphilis.

You will next look at

THE EYES.

A heavy, dull eye, without vivacity, is not prepossessing, and shows a sluggish constitution, unless the person is accustomed to wear spectacles. If a person habitually wears glasses, and then takes them off, it will be found that the eye has no lustre; its mobility and vivacity are lost, for the very simple reason that while using spectacles the person always looks through a focus. That focus corresponds with the focus of the eye in such a manner as to make vision distinct, and necessitates the turning of the head if the person wishes to look to either side, and the eye loses its motion and brilliancy.

There are certain defects about the eye which are to be noted. Fatty degeneration at the upper edge of the cornea, the *arcus senilis*, if present in early age, indicates a tendency to fatty degeneration of internal organs, especially of the heart and kidneys. If present in old people, it is not objectionable, but developed early in life it should reject the applicant. The differential diagnosis between arcus senilis and other affections I must suppose is understood.

I do not think that cataract should influence the application unfavorably, but amaurosis and staphyloma I should regard as objectionable. Further, you should distinguish between cataract and plastic deposit in the pupil. Cataract runs in families and does not prevent the person from reaching old age; but the plastic deposit, which in many cases so closely resembles it, is almost always the result of syphilis, and is objectionable.

Complete blindness in both eyes should exclude the applicant. It is often due to some central lesion, and besides, exposes the person to innumerable accidents.

You should next inspect

THE EARS.

If an offensive discharge issues from the ears, the case should be examined especially with reference to caries. If any little pieces of bone have appeared, I think I should decline the risk, for, from very slight causes, the inflammatory process may be transferred to deeper parts, and terminate life. Perforation of the tympanum with such offensive discharge is objectionable. Simple difficulty in hearing is not at all objectionable; it runs in families, is hereditary, but it does not shorten life. Absolute deafness should exclude the applicant because it is too frequently the result of central lesion. Deaf-mutism is objectionable on account of liability to accidents, and is frequently associated with scrofulous diathesis.

You will then look at

THE NOSE.

If you observe that the nose has become depressed, inquire as to how it was caused. If it has been done by injury, the fact of its existence does not shorten life; but if in consequence of syphilis, scrofula, or diphtheritic ulceration, it may render the applicant objectionable. If there is a fetid discharge from the nose, you should inquire whether any pieces of bone have appeared, and if so, it is an objectionable application. Simple mucous polypus of the nose is of no consequence in this connection, because it does not interfere with long life. But if there is a polypus which has invaded the antrum it is objectionable. Polypus of the antrum, when it pushes downwards the hard palate and perhaps raises the floor of the orbit, is decidedly objectionable, because it is very apt to become malignant; or, if not malignant, will necessitate an operation which may endanger life.

When I see a network of blood-vessels upon the nose of a person in middle life, I always regard them with suspicion. I do not refer to the delicate blue veins which constitute an element of female beauty, but congeries of vessels which look as if injected with red: they are usually the forerunners of apoplexy. Epistaxis, occurring in young individuals, is not of special consequence, but occurring in elderly persons it is decidedly objectionable, inasmuch as it is almost invariably a forerunner of apoplexy. Occurring in persons somewhat advanced in years, it is usually difficult of arrest, and depends upon changes which have taken place in the smaller blood-vessels. The same changes are present in the blood-vessels of the brain, and I have rarely seen a case of epistaxis in old persons who have not subsequently suffered from an attack of apoplexy.

You will next look into

THE MOUTH,

and first at the *tongue*. If the tongue is ragged upon its edges, you may be quite certain that the applicant

is subject to epileptic fits, for during those fits it is frequently wounded by getting between the teeth. He conceals the epilepsy, but the ragged edge is almost invariably found where it has been present. There may be evidences of old ulcerations in the *throat*, such as deficiency of the soft palate, etc., and, if the result of syphilis, as they are very liable to be, you must judge as to what extent the specific disease has affected the general constitution. As a rule, however, there is no objection to such applicants; but if there is a very great deficiency, either in the soft or hard parts, in consequence of ulceration, it is objectionable. I think that even congenital cleft-palate should reject the applicant for life insurance. If, in a young person, the teeth are found to be decaying, the fact perhaps has no special significance. But decaying teeth in the mouth of a person, say thirty-five years of age, may have considerable significance, especially if associated with an exposure of the alveolar process from absorption of the gums. The fact may then indicate premature decay, and although the bad teeth of themselves should not disqualify the applicant, yet, taken in connection with other conditions, may afford valuable suggestions.

THE FACE.

Suppose the applicant shows some signs or remnant of facial paralysis, the mouth being drawn to one side, you must ascertain the cause; if it is the ordinary facial paralysis which has its origin in the peripheral or local nerves, it is not objectionable; but you should examine whether the person has lost power in the hand of the same side; if so, the cause has been central, and the applicant must be rejected.

You will next inspect

THE NECK.

A short, thick neck indicates liability to apoplexy. See whether there are any scars from old ulcerations. If there are, and they are from scrofula, they are not of much account, but if there are present any glandular swellings, they are decidedly objectionable; for, such grandular affection will extend downward into the mediastinum, and afterwards lead to phthisis. Examine the post-cervical glands; if they are enlarged, it is an indication of secondary syphilis. See whether the person has had a seton in his neck; if the marks are remaining, determine why the seton was used. The same may be said with regard to the scars left from cupping, and it may be remarked at this point that scars from cupping, or setons, or venesection upon any part of the body, should at once excite your suspicion, for it is quite probable that the person has suffered from some grave disease. Make thorough inquiry into the history of the case when you see the back, or arms, or any part of the body of the applicant covered with scars from leeching, cupping or bleeding, for those things are not done for amusement. You may now look at

THE BACK.

See whether there is any positive curvature of the spine, either angular or lateral. Angular curvature always excludes the application; lateral curvature should not always exclude it, and should do so only when the curvature is sufficient to disturb the action of the heart. When the displacement of the heart, from lateral curvature, is sufficient to disturb its action, it is sufficient cause for the rejection of the applicant. There is one form of curvature of the back which is harmless. In all large cities—whether the same holds good in the country, I am not certain—a straight back in young girls is exceptional. In by far the greater proportion, the right shoulder is a little higher than the left, in consequence of a very light bend in the dorsal vertebræ. If there is no more curvature than this, the case is not objectionable. There are certain deviations from the straight line brought on by occupation. For example, among carpenters, the right shoulder is considerably higher than the left, but such a deviation has no special significance. We come now to

THE THORAX.

The thorax includes most important organs, and diseases of those organs are most injurious to the insurance company. In the first place, the thorax of the applicant for life insurance should be well formed. We have already studied a table showing the proportion which should exist between the circumference of the chest, and the height and weight of the man. Notice to what extent the chest expands. In health, the ordinary expansion is one inch, and the chest should be capable of being expanded three inches with a forced inspiration. If it does not do that there is something wrong. You may next take the dimensions of the thorax. The circumference of the chest should be double the distance from the tip of one shoulder to the other. The circumference of the chest should be four times the antero-posterior measurement made at the lower part of the sternum. The distance between the nipples and the anterior posterior measurement are equal, hence the circumference of the thorax is four times the distance between the nipples. There should be no sinking of the chest wall under the clavicles, and the expansion should be nearly equal upon both sides; the right side normally expanding a little more than the left. The respiratory capacity in a well-developed man, five feet eight inches in height, should be 230 cubic inches, with forced inspiration, although, in the ordinary inspiration and expiration, rarely more than twenty cubic inches of air are changed. The capacity upon forced inspiration should be 230 cubic inches, and any great deviation from that is decidedly objectionable; if there is a deviation of sixteen per centum, it should reject the applicant. There is either want of vitality or some organic trouble to account for it.

Now, the capacity of the lungs in a healthy man, five feet and eight inches in height, being 230 cubic inches, it should increase eight inches for the addition of every inch; so that a man five feet and nine inches in height, should have a respiratory capacity of 238 cubic inches, and any great deviation from such proportion is objectionable. The proportion holds good from five to six feet. In females the capacity of the lungs is considerably less. The number of respirations to the minute, without excitement, is about seventeen, and should bear a proportion to the pulse of one to four or five.

After having taken this general view you may examine the thorax with reference to resonance. The most important question to be decided is, whether the resonance is perfectly good just above and below the clavicles, for that is the predilection-seat of tubercular deposit. If there is any deviation from the normal upon either side, reject the applicant. There may be a slight diminution of resonance at the lower part of the thorax, perhaps as the result of a slight attack of pleurisy or pneumonia, which I do not think of itself will shorten life, yet, as a rule, I would reject the application. The person examined may live a long life, but when 1,000 such persons are taken, they will not give a good average. If the condition of itself does

not exercise an unfavorable influence, it may indirectly diminish the power of resistance so as to render the person more liable to death from other diseases. Your opinion, although it is given upon the individual, may be entirely wrong with reference to that particular person; and you may reject a man who lives for years. Why? Because he is such a poor invalid, and yet he may outlive the healthiest man. But suppose the insurance company takes such lives? One such person might live for a long time, but the average, upon a number of such cases, would be such as no insurance company could stand.

It is not my purpose to enter into the study of minute diagnosis of diseases of the lungs, for the medical examiner has only to be familiar with the normal sounds, and if the normal vesicular respiration is not heard, or if there is prolonged expiration, the application is objectionable. If, afterwards, you wish to determine what has produced that deviation from the normal condition, you can do so at your leisure. The same thing is true of the heart. Make yourself familiar with the normal sounds, for any deviation from health is objectionable. It matters not whether the deviation be in the form of friction, aortic, mitral, diastolic, systolic, or presystolic murmur; you do not wish to accept any abnormal sound.

We next come to

THE ABDOMEN.

Here you will be obliged to determine whether there is any increase or diminution in the size of the liver, spleen, and other organs, and whether there are present any abnormal growths. Determine whether hernia is present. Statistics show that hernia is present in one out of every fifteen adults. A simple reducible hernia is not objectionable, providing the person pledges himself to wear a truss. An irreducible hernia is decidedly objectionable. I think that an umbilical hernia in the adult, especially in fat subjects, should be declined. Almost all the operations for strangulated umbilical hernia prove fatal; recovery is exceptional. Furthermore, the trusses which afford satisfactory treatment for this form of hernia are difficult to obtain. I should object still more strenuously to a ventral hernia.

If there are any scars or glandular swellings in the groin, they suggest the probability of buboes; at all events, should lead to careful inquiry with reference to constitutional diseases.

You should determine whether albumen or sugar is present in the urine. If there is any cause for suspicion—if there is any evidence which would lead you to suspect that the urine contains either albumen or sugar—do not trust any one interested with obtaining the urine, and making the necessary examination. You may ask the applicant concerning his urine and he will tell you it is all right, that he has had it examined, and that it contains no albumen. He gives you a sample; you examine it, and find that it contains no albumen, but it may be his wife's urine. The reason he has brought the urine for examination is because he knows well that his own contains albumen, and he has therefore substituted for it that of his wife or confidential neighbor. Be certain that the urine to be examined comes from the person making application for life insurance.

We will now glance at

THE EXTREMITIES.

You will first look at the muscular development. Tremulous hands either show a very nervous temperament or are the evidence of chronic alcoholism. Determine whether there are present any marks of cupping, leeching, or general bloodletting. Determine whether the joints of the fingers and toes are enlarged from rheumatic or gouty deposits. Examine the nails; if they are convex in the longitudinal axis, it is decidedly objectionable, and especially so if the extremities of the fingers are also bulged. These signs are indicative of central trouble. If all the nails are malformed, discolored, and covered with thick ridges, it is very apt to be a sign of secondary syphilis. On examination of the feet, you are to determine whether there is any œdema; see whether there is any œdema about the ankles; if so, it must be accounted for. It may indicate impairment of circulation; a general weakened condition of the system; perhaps in consequence of recent illness; and it may be evidence of central disease affecting the kidneys. Decided œdema over the anterior surface of the tibia indicates secondary syphilis. Any enlargement of the knee-joint is decidedly objectionable. Very large varicose veins, especially if they extend above the knee, are objectionable.

The testicles, I think, should be healthy; any hard swelling of the testicle itself is objectionable, although a slight enlargement of the epididymis may not be. A little varicocele is not objectionable for life insurance. Any indication of urethral or rectal stricture is decidedly objectionable. Anything which interferes with the free discharge of the urine or fæces is decidedly objectionable.

With these remarks, gentlemen, I am necessitated to bring my lectures to a close. I have endeavored to direct your attention to the importance of life insurance examination, and to point out wherein it differs from other examinations you may be called upon to make while in your professional pursuits. I also think, if you will follow out the suggestions which have been made, that you will not have occasion to regret the time you have given me during these lectures, which were intended to be rather suggestive than exhaustive.

Original Communications.

A NEW RECTAL DILATOR AND EXPLORER, WITH TWO CASES ILLUSTRATING THEIR APPLICATION.

By PHILIP S. WALES, M.D.,

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THE treatment of stricture of the rectum is always tedious, painful and difficult, and in an increasing proportion to its distance from the anus. The malignant forms are uniformly fatal, and it is only in the non-malignant varieties that a successful issue may be secured by surgical measures. The ordinary appliances employed in the latter class of cases have not been altogether satisfactory, particularly in those instances in which the obstruction is seated high up in the bowel, and beyond the reach of the finger. Having recently had two cases of this latter sort, in one of which particularly, the practical difficulties culminated from the height of the stricture, I had recourse to certain mechanical contrivances with the most gratifying results. I shall first relate, as succinctly as possible, the cases, and then describe the instruments with which they were treated.

CASE I.—The Admiral of the Navy consulted me, Nov. 23, 1875. He stated that he had been ill for

four or five years; had lost much flesh; his mental powers—especially memory—had become impaired; that he was gloomy and foreboding; the slightest exertion exhausted him so that he rarely took exercise. The bowels had been obstinately constipated, requiring numerous and daily injections, in connection with cathartic medicines, to solicit a movement, and then but a trifling amount could be passed. His appetite was poor and capricious, and his sleep was disturbed and unrefreshing. The abdomen was distended and often tender, and one of the most annoying symptoms was frequent and painful contractions of the anterior crural muscles. His skin had assumed a decidedly yellow tinge, and his countenance wore a haggard and very painful expression.

He said he had consulted many physicians, and had had his case made out to be cancer of the bowels, disease of the kidneys, liver, spleen, and stomach; in fact, all the chylo-poietic viscera had been, from time to time, charged with occasioning all the trouble; hence the variety in the plans of relief.

He certainly presented, when he came under my care, the appearance of a person suffering from some chronic organic disease, and had I been asked to diagnose his case from mere inspection, I would most likely have guessed malignant disease located in some place yet to be discovered; but the history of the case, the time that had elapsed since it began, and the retention yet of something of a vigorous frame, caused some misgiving in this direction. The finger detected no obstruction in the rectum; a ten-inch endoscopic tube, thoroughly illuminated, revealed a more than usual narrow but otherwise healthy bowel; abdominal palpation showed some degree of colonic impaction; and percussion, great distention of this portion of the intestine. Could there be a stricture between the narrowed bowel below and the expanded colon above? An explorer was introduced and a stricture found thirteen inches from the anus, through which a flexible bougie, one quarter of an inch in diameter, could just be made to pass after a tedious trial.

The case was now a plain one as far as the diagnosis was concerned, and for its proper treatment there was only lacking an efficient dilating apparatus. The old-fashioned bougies, which I had frequently applied before in low-down stricture, were tried with but little success. They were too short, inflexible and painful on introduction. I also suspected that the colon, so long dilated, had undergone change in consistence and needed to be gingerly handled. It then occurred to me that if india-rubber dilators could be gotten, the work might be done safely and efficiently. Search was made in the large commercial cities, but nothing of the sort was procurable; finally drawings were prepared and the needed instruments were manufactured at a large rubber factory in New York. Although not exactly perfect, the labor of dilating was begun, and after persisting in the treatment for five months, figured stools passed, and the Admiral regained his pristine vigor of mind and body.

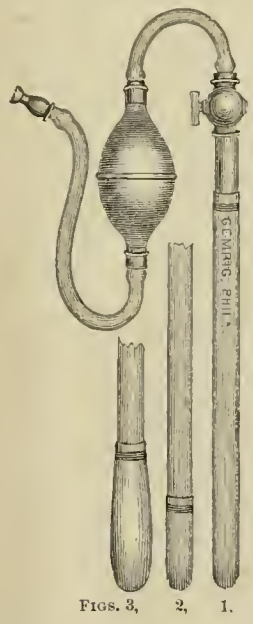
Case II.—Lieutenant-Commander B—— consulted me March 7, 1876. The following is a history of his case, condensed from a written communication: "During the years 1868 and 1869 I suffered very much with constipation; I had a broken stool every morning, immediately after breakfast, and another about an hour later, with distress between them. The stools were slimy and accompanied with crepitation, being passed without straining, as if forced out by the wind. My general health was good, although at times I was troubled with a feeling of fulness in my head. I was on shore duty at this time. Have always suffered a good deal with constipation at sea, but up to this time had no trouble while ashore. During my last cruise in 1869 and 1870 I suffered so much with constipation, that I hardly ever had a movement, when at sea, without the aid of medicine.

In August, 1870, I caught cold, which produced gastric catarrh. I had, after this, several very large and "fermented" stools during the day, accompanied with great burning in the lower intestine, and general exhaustion. This trouble lasted about three weeks. In October, 1870, I went to Mexico on a surveying expedition and was some five months in the mountains. I was hard at work all the while, on horseback every day, and felt very well most of the time, although I had several attacks of diarrhœa with mucous discharges, and great pain near the rectum just before passing a stool. My strength kept up, and I was very well on my return to the United States in May, 1871, but about a week later my nervous system seemed to give out all at once. While in Mexico I had but one stool a day, immediately after breakfast; I now had several, all broken and accompanied by mucus. I felt distressed during the morning until all the fecal matter had been passed. I was excessively nervous; although I had been a smoker for many years, I could not touch a cigar. The least excitement put me in a tremble all over. I consulted a physician, who said that my system was full of malaria. Later I had a return of the "fermented" stools, when I was recommended a diet of rice and milk, which I continued for several months, the "fermented" stools disappearing in a few weeks. At last I became so weak that I could scarcely walk. I then had electricity applied to my stomach, and changed to a more nourishing diet. In 1872 I spent four months travelling in Europe, was very miserable, and could bear very little fatigue or excitement. I generally had two stools in the morning, preceded by intense pain in the lower bowel. I was taken sick at Venice with a violent diarrhœa, which lasted ten days, having a small passage of clear mucus every hour or two, for two or three days, preceded by intense pain in the bowels. The doctor whom I called in recommended a diet of beef tea, arrow-root and champagne, which I kept up for three months, until my return to the United States. I spent fifteen days at a magnetic spring in Michigan, which seemed to restore my nervous system in a great degree. In 1872 I noticed that my stools were composed of balls about one-half of an inch in diameter, and three or four in number during the morning; besides this sort of discharges, the least excitement or passing into a cold or damp room caused an evacuation of about a tablespoonful of semi-transparent mucus.

The balls passed gradually became smaller and at last the stools consisted of a flat or three-cornered strip, about six or seven inches long, of good color, but coated with slime. I consulted with many physicians, most of whom said that I was notional, having so many symptoms. I was finally obliged to abandon my professional duties. My mind was much confused at times. I had intense headaches, loss of memory, and great dread of any difficulties or excitement. In the spring of 1875, I felt satisfied that there must be some stoppage or obstruction in the intestine, and forthwith consulted an eminent physician. He made an examination with his finger and stated that there was no stricture; copaiba was prescribed, but I had to give it up in a few days, as it affected my kidneys, and gave me severe pain in my back. I had many functional difficulties, my eyes became very sensitive to light, and

there was a continual burning sensation in the bowels, accompanied with great depression of spirits, fulness of the head, and a sensation of weight on the top of it, a continual sense of fulness and burning in the back, as if there were veins starting from the lower part of the spine and branching out towards the shoulders, and distended with hot, burning blood. This feeling in my back was so great that I could not lie on my back or lean against a chair. I was obliged to pass my urine every two or three hours, and have been afflicted with seminal emissions throughout my troubles. At present, January 1, I am free from all the foregoing distressing symptoms, and have figured discharges of good size."

In this case the stricture was found to be located seven inches up the rectum, and has been sufficiently dilated to permit the passage of an instrument three-quarters of an inch in diameter. The dilators used in the cases above related were manufactured, as stated, out of pure rubber, with a canal running the whole length, and gradually increasing in size by an eighth, from a quarter of an inch to an inch in diameter. Each dilator is fitted with a gum sheath of corresponding dimensions. In order to secure the most perfect construction, a model was submitted to Mr. J. H. Gemrig, of Philadelphia, who has, with his well known skill, made an admirable set of eight dilators. The accompanying cut, Fig. 1, will furnish a good



FIGS. 3, 2, 1.

FIG. 1.—The Dilator. FIGS. 2, 3.—The Explorer, dilated and undilated.

idea of them. It represents one of the dilators, with its sheath undilated, and connected with the syringe by which the sheath can be distended with water. The sheath may also be inflated by Politzer's air-bag, or other suitable contrivance. The points of the dilators may be terminated spherically, or taken for an inch and a half, or two inches conically, the latter form, on the whole, being more easily introduced. The sheathes made by Gemrig do not burst under ordinary pressure, as those did I employed at first; besides the loss of the sheath, no damage is otherwise done. A low thud and a peculiar sensation felt by the patient at the moment announce the accident and alarm nervous subjects. The whole length of the sheath, both inside and outside the bowel, or any portion of it, may be filled with water; in the latter case a thread of silk is to be twisted around the dilator at any point that it may be desirable to limit the distention. Indeed, the sheath might be made in one piece, with the central portion for one-half or one-third of its length—a modification which I shall test at an early period. Ordinarily, however, I believe it will be advantageous to distend the entire bowel below the stricture at the same time that the stricture is being acted upon, as I have several times observed a general narrowing below the obstruction, which, I presume, is owing in part to the fact that the bowel is bereft of the habitual distention from the daily passage of moulded fecal matter in the normal condition.

The method of introducing the dilator is simple. I prefer placing the patient, reclining on his left side, upon an ordinary operating-table, the thighs flexed and the buttocks just overhanging the lower edge. The operator may then comfortably seat himself during his manipulations—an advantage of no ordinary character, if they are to be at all prolonged. The smallest-sized instrument is smeared with grease, and its point inserted into the anus and gently pushed onward in the following manner. The right hand grasps the dilator close to the anus, and the whole perineum is to be pressed upwards, which will advance the point of the instrument; the left hand now steadies it, while the right is slid downwards for a lower hold, the perineum of course settles with it; the dilator is again pushed forward in the same manner until the obstruction is passed. I have occasionally found that this may be greatly facilitated by sinking the fingers of the left hand deep into the left iliac region, and drawing upwards, as though an effort was being made, so to speak, to stretch out the sigmoid flexure, while pressure is maintained at the same time upon the dilator in the manner described. Another practical point of prime importance is to employ an abundant stream of water, projecting it through the conduit of the instrument as warm as can be comfortably borne, whenever its point is arrested from any cause. The water flowing from the distal aperature will distend the bowel, efface its folds, and break down any hardened fæces that may exist, obstructing the ascent of the dilator. While the operator is engaged with the dilator, an assistant may manage the syringe and throw in the water in such quantities as may be needed. It must be borne in mind, however, that no great volume should be used at once, otherwise the bowel will be excited to energetic contraction, and compel the dilator to be withdrawn before it has been properly lodged. In preliminary trials, the dilator may be permitted to remain two or three minutes, and afterwards, when greater tolerance is established, a longer stay may be allowed. I rarely exceed half an hour in any case, even when the patient makes no complaint of irritation or pain. After several introductions of one size of the dilators, perhaps seven or eight, the next largest may be taken, and so on until the stricture has been sufficiently expanded. The application of the instrument may be repeated twice or thrice a week, according to circumstances, such as the irritability of the rectum, temperament of the individual, and intercurrent attacks of diarrhœa or other trouble. Twice a week, in my experience, suffices in most cases of rectal catheterism. A fortunate issue, if attainable, can only be brought about by patient and prolonged treatment. Rudeness or violence, inflicted with a view of hastening the case, can effect nothing but harm, and may

jeopardize the life of the patient. If the instruments be hastily thrust in, the bowels may be perforated, especially in those cases in which inflammatory softening or ulceration exists; or, if they be too large, the rectal mucous membrane may be ruptured, giving rise to smart hemorrhage, as happened in one of my early cases; or the entire wall of the bowel may be ruptured into the peritoneum—an accident that is pretty sure to be followed by peritonitis, with all of its attendent dangers.

These funest sequences are infinitely less liable to follow the use of pure india-rubber dilators than that of any other sort; for certainly, *à priori*, nothing could furnish a milder, more equable, and less dangerous force than these, and experience sustains this view.

That the pressure possessing these merits is all-sufficient to effect the result desired, is shown by the cases cited above; indeed, the maximum distention obtainable by the dilator cannot, even were it safe to exercise it, be supported by any person not anæsthetized, and hence the unnecessariness, in the majority of cases, of the numerous forms of those dilators constructed with a view of gaining great mechanical power. Possibly in exceptionable instances, they may be found applicable, and any severe suffering may be easily eliminated by chloroform; but the only safe plan in rectal instrumentation is to proceed with the patient in the full possession of his consciousness, so as to secure the assistance of his sensibility in guiding the hand while managing the dilator. I have not yet encountered a single stricture case that did not suffer very much, both in the introduction and the expansion of these contrivances; and in constriction situated high up in the bowel they are altogether inadequate.

I have now introduced these rubber instruments into the intestine several hundred times, without discovering any major objection or defect. Some of my friends have, however, expressed a suspicion that, being so soft and flexible, they are likely to deceive by doubling in the intestine, instead of slipping along the mucous membrane. This is, of course, possible, but I have not as yet seen them perform the whimsical caper of knotting, which occurred in the first case related in this paper, with a flexible tube, such as is ordinarily used in connection with the stomach pump. It was passed eighteen inches into the bowel, and, as I supposed, stretched out its full length. On attempting to withdraw it some resistance was felt, which

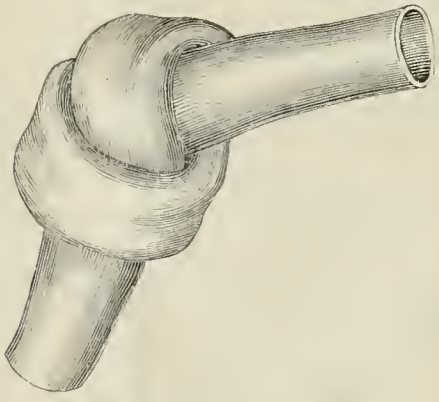


Fig. 4.—Knot tied in a rectum tube.[1]

required no little tractile force to overcome. The difficulty was at once apparent; the tube was tied in a single knot, as shown in the appended sketch (Fig. 4), made by the Admiral himself, who has kindly furnished me with it.

I have also been using the dilators in applying ointments, variously medicated with astringent and anodyne substances, in cases of relaxation of the intestinal mucous membrane, prolapse, hemorrhoidal tumors, and other morbid rectal conditions. A slight modification converts the dilator into an irrigator; that is, by having two parallel conduits in it—one for the fluid to pass in, and the other for it to escape externally. The bowel may be thus irrigated quite high up, for I have frequently inserted the instrument twenty-eight inches into the colon. In one case the patient passed every morning one or two large, yeasty stools, mixed with mucus, and followed by much mental depression. A cure was obtained by the injection, three times a week, of a solution of carbolic acid, after internal medication had failed. Much advantage may be realized from the use of warm irrigation in various diseases of the contiguous pelvic and abdominal organs—as cystitis, prostatitis, suppression of urine, and intussusception. The half-inch dilator will furnish a ready tube for introducing alimentary substances into the stomach or rectum. Stricture of the œsophagus, though I have treated no case of this sort with the dilator, yet with my present experience in rectal constriction, I feel pretty sure may be most satisfactorily managed in an analogous manner.

To supply a want long felt of a facile and reliable means of diagnosing intestinal diseases, I have constructed an explorer (Figs. 2 and 3), which has worked admirably in my hands; and some of my friends, who have employed it in cases in which stricture was suspected to be present, have assured me that they regarded the evidence furnished by the instrument as very conclusive. It may be prepared in the following manner: take a dilator, say one-half an inch in diameter, and over its distal extremity draw a hood of thin india rubber two inches long, securing its margin with a fine silken thread. If the rubber is not at hand, a piece of moistened bladder or gold-beater's-skin will answer very well. The instrument thus made ready should be well coated with a stiff grease, like simple cerate, or zinc ointment, which, I find, works better than sweet oil in facilitating its gliding over the mucous membrane, and introduced in the manner I have already described for the dilator, until its point is lodged far above in the descending colon. A syringe is attached to the instrument, and its point expanded into the form of a ball an inch or more in diameter. Gentle traction is now to be made, which will cause the ball filled with water to move slowly down the bowel. If no obstacle is present, the ball will soon emerge from the anus; on the contrary, any obstruction will arrest it above. It may be that spasmodic contraction will have a like effect, but this can be easily distinguished from permanent stricture by keeping up the traction a few moments, until the muscular force of the intestinal walls is exhausted, when the ball will again slip along. I always use hot water, and smear the explorer with belladonna or iodoform ointment, with a view of eliminating this source of error. In cases of organic narrowing, its degree may be determined approximately by maintaining the traction on the explorer, while the water is permitted to flow out in small quantities at a time, until the size of the ball is sufficiently reduced to slip past the constriction; the diameter of the ball, which represents that of the stricture, may be now ascertained by mere inspection. Although, practically, an explorer prepared in this simple manner is quite efficient, yet, to secure an instrument always ready and more

artistic. I am endeavoring to get the point and body made in one piece, with a second conduit running along the stem, and terminating behind the ball, so that a stream of water may be ejected at any moment, should the point catch in the intestinal wall.

Progress of Medical Science.

Sudden Death from Embolism.—Dr. Fitz, of Boston, has collected four cases of sudden death occurring in patients that were under medical observation, and on whom post-mortem examinations showed an obstruction of the circulation in some of the principal vessels. Dr. Fitz believes that such accidents will happen so seldom in the course of any physician's practice—even then causing doubt as to their real nature, that the review of the main facts in these cases will be of interest. While he finds that there are no symptoms that point absolutely to embolism, some are suggestive, and may enable the physician to be tolerably sure of his diagnosis. Unfortunately, treatment in any case offers little hope. In one instance a lady was suffering from a mild attack of typhoid fever, with a slight paroxysmal cough and rushes of blood to the head, with difficulty of respiration and irregular action of the heart. In one of these attacks she died, after an hour's struggle. The cause of death was credited to a primary "embolism of a small branch of the pulmonary artery and its extensions to the heart, by secondary coagulation until it protruded into the main pulmonary artery." In another case, a lady, fifty-two years of age, who had enjoyed robust health, began to suffer from occasional attacks of diarrhœa. She became worse, was seized suddenly one day with dyspnœa, and in two hours died. The immediate cause of death was a thrombus of the primary pulmonary artery, in appearance firm, gray, and laminated. There were no symptoms during life pointing to thrombosis, and there was no evidence of embolism preceding the final attack. In the third case, the patient was a lady, twenty-five years of age, who was delivered of a healthy child by turning, little blood having been lost. A few hours afterwards she had a chill and pain in the left iliac region, and for twenty-four hours after delivery the after-pains were severe. But these unfavorable symptoms gradually disappeared, and convalescence set in. On the 24th day after delivery she moved from her chair to the bed, lay down, and immediately began to breathe with difficulty. Her face began to be livid, her tongue blue, and she tossed about, complaining of intense pain in the epigastrium. Death took place in fifteen minutes. "A soft, reddish-gray thrombus, the size of the forefinger, extended from the right iliac vein into the inferior vena cava for two inches. Thrombi were also found in the right ovarian vein and in the vesical plexus. The tricuspid orifice contained a club-shaped embolus, one and a half inches in length, the larger end being the size of the tip of the forefinger. Both primary pulmonary arteries were plugged with emboli. Where the origin of the trouble could have been in this case is still a question. In two instances there was chronic valvular disease of the heart, thus favoring the production of thrombi, and there was embolism of pulmonary arteries. The main symptom recognized in these cases has been suffocation; and in making a differential diagnosis we have to decide between (1) closure of the greater air-passages, or of a large number of small ones, from without or from within; (2) nervous lesions affecting respiration and circulation; and (3) obstruction to the pulmonary circulation from emboli. In regard to the first series we may have no great difficulty. In the second we have the symptoms of cerebral anæmia, viz.: pallor, relaxed muscles, disturbed vision and hearing, etc. In case of embolism we have the history of an antecedent thrombus, or some form of heart disease which occurs in association with thrombosis.—*Boston Medical and Surgical Journal*, Jan. 25, 1877.

Cystic Bronchocele with Metastatic Deposits in the Lungs and Bones.—Professor Cohnheim, of Breslau, reports an interesting case, which appears to be unique. A feeble woman of thirty-five had been under surgical treatment for suppurative synovitis of the knee and sacro-iliac disease, of which she finally died. At the autopsy it was observed that there were deposits in the lungs and in the femur and lymphatic glands. She had also a bronchocele, the right lobe showing under the microscope only the ordinary follicular appearance, while the left was cystic, and contained gelatinous matter. The deposits in the lungs and bones and lymphatic glands had precisely the same minute structure as the left lobe. The author of the article has found that Eberth reported a similar case in a dog; but with this exception it is the only case known to him in which this form of tumor has exhibited metastatic deposits.—*Archiv f. Path. Anat.*, lxviii., 4, 1876.

Open Dressing of Wounds.—In a recent lecture at the Westminster Hospital, Mr. Davy enumerated his excisions and amputations of the past two years—thirty-three in all, including two excisions of the hip, one amputation of the thigh, five Syme's, and two Chopart's—and all treated by the open method, with not a single death. He states that the results of open treatment are equally as good as with the antiseptic system, and he intends to employ it until proofs are brought that there is any better method.—*Br. Med. Jour.*, Dec. 30, 1876.

Treatment of Suffocative Goitre by Injection of Iodine or the Use of Setons.—Mr. Lennox Browne, of London, advises strongly against excision of the thyroid, which he ranks as a highly dangerous operation, from the fatality which has been shown to be associated with it even in such skilled hands as those of Dr. Watson. He finds that a much simpler procedure will be successful, cause the disappearance of the tumor, and at worst only leave a slight scar; and he gives six cases of his own in support of his statements. The tincture of iodine may be injected, as recommended by Lücke, of Berne. In some cases it produces absorption, and in others suppuration; when the seton is used it is left *in situ*, so as to produce very long suppuration. In one case, where the tumor involved the isthmus and left lobe of the thyroid, and was as large as an orange, injections of the tincture of iodine were practised three times on alternate days, about thirty drops being used. Suppuration was then invited by fomentations, and, when the abscess formed, two further injections were made into the side swellings. The discharge took place spontaneously, and continued for four weeks, pledgets of lint being introduced into the wound, so that it might heal from the bottom. About nine months afterwards there was no sign either of tumor or scar. In another case, a young woman of twenty two had a general fibrous enlargement of the thyroid. Swallowing had become difficult and breathing was embarrassed. An injection of iodine was made at the first visit. Great pain was occasioned, and the patient passed a sleepless

night. On the next day a seton was introduced and retained one month, and the effect was markedly beneficial, free discharges ensuing, and the tumor diminishing in size most markedly. A month later all discharge had ceased; there was no thickening perceptible, and the cicatrices were mere points. Her general health had also much improved. Mr. Browne has obtained very little advantage from electrolysis in these cases. Of eight patients who were thus treated, one only obtained real benefit. As auxiliary to the treatment, he recommends the patients to finish up by a course of baths and waters at the Bromo-Iodine Spa of Woodhall. Mr. Browne says it is difficult to say in which class of cases iodine is to be preferred and in which the seton. When the tumor is substernal and causes dyspnœa, it is the extension of the disease behind the trachea and œsophagus that is the cause of the trouble. These bronchoceles are usually small, and are always fibrous. The cystic bronchocele rarely embarrasses the respiration.—*Br. Med. Jour.*, Dec. 30, 1876.

Operative Treatment of Cysts of the Urachus.—Dr. Roser, of Marburg, has had some experiences in these curious tumors, and has found in them so much that was interesting that he has thought them worth putting on record. In one case, the patient, a woman, could not pass her water at pleasure, for the compression of the bladder forced the water into the cyst, where it accumulated to the amount of three or four litres, its full capacity. Compression of the abdominal walls would then force the water through the urethra. Still, the amount passed in this way was small, and thorough evacuation could only be accomplished by catheterization. When first seen by Dr. Roser, she was in the third month of pregnancy; the uterus was slightly retroverted and depressed. The symptoms of extreme distention of the lower abdominal walls was relieved by puncture of the cyst, and in fact they did not recur during the remaining months of pregnancy, which terminated in a normal confinement.

Four years later, the same urgent symptoms called for the same operative procedure; but abortion followed, and afterwards the communication between cyst and bladder closed. Puncture of the abdominal walls was again done, and the patient regained her former condition of health, but the fistula remained open. It is now entirely closed, the only treatment being the withdrawal of the water, every two hours, by the catheter. In another case, Dr. Roser extirpated the cyst successfully, mistaking it at the time for an ovarian tumor. In Dr. Wolff's Inaugural Dissertation (Marburg, 1873) the following points are made, which, it is thought, may assist in a differential diagnosis. When a cyst is observed in the lower abdominal regions, growing slowly and gradually forwards, where it also has its attachment while (in woman) the uterus is depressed, it may be held to be a cyst of the urachus in an early stage. If the cyst be punctured, and flattened epithelium is found in the fluid, the likelihood will be increased. Cysts of the urachus are thought not to be as uncommon as is generally supposed. In fact, tumors, called ovarian, have in some instances been found to empty themselves through the bladder; and, besides, supposed ovarian tumors have more than once been removed, and the patient dying, the ovaries have been found unaffected. —*Archiv f. klin. Chir.* XX., 3. 1877.

Treatment of Diphtheria.—Mr. F. Knowles, of Ipswich, gives in the *Lancet* (Jan. 13) an account of the treatment of seventy-six cases of diphtheria occurring in his practice during a severe epidemic in 1869. He says: "In each case I applied a strong solution of iodine to the false membrane—in mild cases once, in severe cases every six hours. After allowing the pigment to remain on for about the space of a minute, I directed the patient to hold a small quantity of the wash used by me in the throat for a few moments. On rejecting it, the false membrane invariably came away. In young children I used a soft camel-hair brush to remove the membrane. I never used force in any case to detach it, as practised by Loiseau. Although the exudation reformed, I found after each application the quantity was lessened and altered in character, being thinner and more fragile. The strength of the iodine I use, even for the youngest child, is: iodine, one drachm to two scruples; iodide of potassium, two scruples; rectified spirits of wine, one ounce. I use a brush made by Messrs. Maw & Co., which is fixed into a vulcanite stem. It possesses many advantages, being durable, very flexible, and moderate in price. The wash consists of a solution of chlorine and hydrochloric acid gas. It is prepared thus: Take of chlorate of potash, eight grains; put it in a pint bottle, with one drachm of pure hydrochloric acid, cork the bottle and shake it; as soon as the chlorate of potash is dissolved, add one ounce of distilled water, recork the bottle and shake it; repeat the process twice more, and then fill it up with water. I use equal parts of this solution and water; the addition of two drachms of tincture of myrrh to half a pint makes it much more agreeable.

"The internal treatment of this malady I consider most important. The one I always adopt is to administer the following mixture from the commencement of the attack: Chlorate of potash, one drachm; dilute nitro-muriatic acid, one drachm and a half; compound tincture of cinchona, three drachms; water to six ounces—one ounce to be taken every two or three hours, and dose in proportion to children. I believe chlorate of potash to have a special influence in preventing the formation of plastic material. When the submaxillary and neighboring glands are affected, I order linseed-meal poultices to be kept constantly applied. Inhalations of hot vinegar and water, in the proportion of one to three, I have often found very serviceable. In every case I ordered the patient to be well supplied with good, nourishing, digestible food, such as game-soup, beef-tea, chicken broth, warm milk, eggs cooked and raw, and as much fresh-gathered fruit as wished for. Pontac and sound port were freely administered. In most of my cases the gangrenous odor emitted from the throat was almost intolerable. In very few of the cases was albumen present; but I noticed in several that the urine turned to a reddish violet on the addition of nitric acid and heat, which I suppose was due to the presence of purpurine. The highest temperature I obtained, taken by thermometers tested at Kew, was 105°. Another fact worth mentioning is, that in only one case was any paralysis of the soft palate present; but in many cases there was hoarseness and weakness of the voice, which lasted some little time."

Small-Pox still prevails to a considerable extent in England. In many of the larger towns it is epidemic. During the past year there has been a tendency to the occurrence of erysipelas after vaccination.

A Crowded Profession.—A physician of five years' experience wishes to obtain a situation with another practitioner who may desire to retire from active practice. We have no doubt that he will be overwhelmed with applications.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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VISCERAL SYPHILIS.

Due, undoubtedly, to the success of the debate upon the pathology of syphilis which took place last year before the Pathological Society of London, that body has decided that this year there shall be a debate at its meetings upon visceral syphilis. One of the results of the previous debate was to show that our knowledge of visceral syphilis in general was far from complete, and that it was probable that certain visceral lesions occurred in the secondary period of syphilis, of which we were almost ignorant, and further that many points particularly bearing upon the nature of these lesions, in hereditary syphilis, were as yet very obscure. It will be seen that the subject is a peculiarly appropriate one for such a body, and that if it is entered into in thorough spirit much good may result from its discussion. The first meeting occurred on the evening of the 16th of January, at which several interesting specimens were offered, bearing with them many important facts, but, unfortunately, there was very little comment. We shall present to our readers, from time to time, a general *résumé* of the subject, after the manner of last year, when the pathology of syphilis was under discussion.

The proceedings were opened by the address of Dr. Murchison, the newly-elected president, who made some very sensible remarks as to the function of the society, and as to its influence upon general medicine; he further made certain suggestions to its members as to the selection of specimens for presentation, which would be of benefit if heeded by members of similar societies in this country.

The subject of visceral syphilis being then in order Dr. Barlow exhibited an hereditarily syphilitic infant with enlargement of the spleen, traceable as low as the crest of the ileum, which also seemed to have heart disease, as a systolic murmur, audible at the apex and as far as the axilla, was made out. The child had been observed since its fourth month, when it presented the spleen swelling and the usual manifestations of hereditary syphilis. Barlow stated that the form of swelling here exemplified was first described by Dr. Gee, who states that it can be felt in half of the cases, while one-fourth of the children having it die. As to the nature of the lesion little is known; it is not lardaceous and in one post-mortem examination no gummata were found, while in another there was capsular thickening. Barlow suggested that, according to the theory of Hutchinson, syphilis was simply a thinned-out fever; perhaps the condition was similar to that which obtains in typhoid.

Dr. Greenfield exhibited specimens taken from twenty-two cases of syphilitic disease in various stages, of affections of the dura mater, cerebral arteries, and of the brain and lungs, together with specimens illustrative of the growth and degeneration of gummata. Of the twenty-two cases, twelve were females, and ten were males, whose ages varied between twenty-three and forty years. While that of the females was between twenty-three and fifty years.

The majority of those who died directly from syphilis were comparatively young. Of the females under twenty-five, 1 died of accident, 1 from laryngeal disease, and 2 from thrombosis of the cerebral arteries. Of the males under forty, 1 died from diseases of the cerebral vessels, 1 from gummata in the brain and dura mater, 1 from laryngeal disease, and 2 from intercurrent troubles. In the females over thirty, the causes of death were: thrombosis of cerebral arteries, 2; of pulmonary artery, 1; of lardaceous kidneys, 2; peritonitis after colotomy for syphilitic stricture, 1; hæmoptysis in mild phthisis, 1; pyæmia, 1. Of the males over 40, one died of perforation of the dura mater by a gumma with resulting meningitis, 1 from laryngeal disease, 1 from lardaceous kidney, and another from cardiac dilatation. Thus fifteen out of twenty-one died directly from the effects of syphilis. It is to be remarked that amyloid degeneration was only found in four cases. In most of the cases, and all presenting cerebral lesions, there was no coexistent affection of the skin, though in some of them there were typical syphilitic cicatrices, and in the cases of laryngeal, rectal, and pulmonary disease the skin was also involved. In several of the cases, mostly female, there was atheroma, varying in extent, of the arteries. Greenfield then showed two specimens of syphilitic lesion of arteries. The first, an artery of the pia mater, near a cerebral gumma, appeared like a white fibrous cord. The walls of the vessels were much thickened and the channel greatly narrowed. The outer coat was infiltrated by a cellular growth, particularly noticeable around the vasa vasorum. While the middle coat was but slightly affected, the inner was greatly thickened, thus forming a large mass which nearly occluded the vessel. By high powers the growth in the inner coat was found to resemble that of fully developed gumma tissue, with capillaries of new formation running through it, the whole showing a tendency to organization. The

growth was separated from the blood channel by a distinct endothelial layer. The author regarded the changes as similar to those recently described by Heubner. The other specimen, from a case of very advanced and extensive disease of the cerebral arteries, was a section of a small artery of the cerebellum, in which the vessel was very nearly filled up by the thickening of its walls, which, consisting of hyperplastic change, seemed to involve all of the coats, it being doubtful whether the inner was the one mainly affected. The condition was similar to, but more advanced, than the first. Greenfield thinks that he has observed similar changes in the vessels of other organs, and that perhaps they played an important part in the degeneration of gummata. He then showed two specimens of disease of the lungs, which he thought to be due to syphilis. In one, from a female aged twenty-five, having typical ulcers on the legs; the change, limited to the middle of the lower left lobe, consisted of fibrous bands passing from the pleura inwards along the vessels, causing a contraction and puckering of its surface. By the microscope these bands were found to consist of fibroid thickening around the branches of the pulmonary artery. In the other case, from a man forty years of age, the disease, limited to the lower right lobe, consisted also of similar fibroid bands, producing a similar result to that of the first case, without any thickening of the pleura. This condition was found but twice in over six hundred autopsies, and in both cases evidences of syphilis existed. Dr. Gowers exhibited a specimen, called by him after Wagner, a syphiloma of the brain, which showed how that organ is invaded by syphilis by means of the meningeal vessels. He endorsed the generally accepted view, that intra cerebral gummata arise from the vessels of the processes of the pia mater between the convolutions. He further showed two coalesced nodules springing from the dura mater, composed of rounded nucleated cells, $\frac{1}{2000}$ to $\frac{1}{3000}$ of an inch in diameter, with fusiform cells and delicate fibrillary stroma, taken from a twelve-year-old child afflicted with hereditary syphilis. His third specimen was a nodule of the middle cerebral artery, showing syphilitic disease of arteries, from an adult male who had received the contagion fourteen years before. There was a large gumma in the anterior lobe, and the basilar artery was encircled by a new growth. The nodule was composed of small cell growth, with the usual fusiform cells and delicate fibrillar stroma, and appeared to arise in the outer coat. The inner coat was contracted and seemingly thickened, while the lumen of the vessel was filled with cells similar to those of the nodule, showing that the growth had been both outwards and inwards. Gowers showed a fourth specimen, a nodule from the lung of a patient who presented two gummata of the cerebellum. The nodule was about one-third of an inch in diameter, ill-defined in structure, with several caseous points. The structure was of round cell growth, partly around vessels, and infiltrating the walls of the air cells, which were filled with new growth and inflammatory products. Though in structure it resembled the growth from the cerebrum, it was impossible to distinguish it histologically from tubercle.

Dr. Barlow exhibited specimens of syphilitic affections of the meninges and of choroiditis from a female infant seen by him, when one month old, having snuffles, but no rash, though its father was known to be syphilitic. He learned, three months later, that the child had had eleven fits, and he observed that it was wasted and that it presented symmetrical serpiginous ulcers of the nates. Later it suffered from laryngitis and contractions of the feet. In the fundus of each eye were specks of brownish exudation in the choroid, which suggested disease of the membranes. Shortly after the infant died, and on post-mortem examination the thoracic and abdominal viscera were found to be normal. In the skull there were several spots of adhesion between the arachnoid and dura mater, as well as some greenish lymph. The pia mater was thick and fibrous, and in one or two places its vessels were thickened and appeared like white threads. There were no granulations, and but few superficial spots of softening. Examination of the choroid membrane by Mr. Nettleship showed collections of corpuscles in the chorio-capillaris not arranged around the vessels.

These growths in the choroid differ from tubercle in not being like it of peri-vascular origin, and in not showing a tendency to caseation as the latter does. In the pia mater there was a great excess of fibrous tissue and a diffuse infiltration of nucleated lymphoid cells, while the vessels showed a growth in their inner and middle coats of such extent as to nearly occlude them. When they become thus occluded new vessels develop in their structures. The society then adjourned.

It will be seen that, in this, the first meeting, many facts of great interest were developed. The chief point shown by specimens was the arterial degeneration, recently well and thoroughly described by Heubner. We have here presented to us, in the specimens, the general outline of the course of this interesting lesion; and, although nothing new has been developed, the fact that independent observers arrive at similar conclusions to those advanced by Heubner, is important. The amount of knowledge thus far presented as to the nature of syphilitic pulmonary lesions is very small, but the features described by Greenfield, as occurring in the lungs of two syphilitic patients, are very interesting and suggestive. The results of the examination of Gowers and Barlow of the morbid products of hereditary syphilis are very important, though, as yet, fragmentary. Finally, the exhibition of the case of enlarged spleen in hereditary syphilis calls attention to a symptom which, though well known, has not of late years been much spoken of. We look forward with interest to the results of future meetings.

Reviews and Notices of Books.

CHIRURGIE ANTISEPTIQUE: Principes, modes d'application et résultats du Pansement de Lister, par le Dr. JUST LUCAS-CHAMPIONNIÈRE. Paris: J. B. Baillière et Fils. 1876.

THE author, in a little brochure of 153 pages, gives an interesting and pleasantly written summary of antiseptic methods, as he saw them practised in Edinburgh by Mr. Lister, at first in the year 1868, and then in 1875. He believes that a six months' trial of the method at the Hôpital Temporaire last year, which, by the way, was the first systematic attempt to carry out Mr. Lister's plan in full—has sufficiently proven the great advantages of the plan. To those desiring to familiarize themselves with these matters, the theory on which they are based, the precise details of application, together with all the adjuncts, in the shape of antiseptic gauze, catgut ligatures, and drainage tubes, etc., the little book can be heartily recommended. It may be important for all surgeons to give this method a thorough trial, for it appears to have no theoretical objections to it—in fact, it inculcates certain principles that may prove to be of incalculable value to surgeons. One is the very careful cleansing of the hands of the operator and his assistants, as well as the instruments and appliances; then the use of catgut, which is apt to be unirritating and will melt away in a closed cavity; another is the withrawal of matter by drainage tubes, while he is apt to leave the wounds as much as possible to themselves, the *pansement rare* of the French. We need not, in adopting the plan, believe with Mr. Lister that the results depend inevitably upon the truth of the vegetable germ theory, for the most recent observations appear to show that this evidence is very slender, nor do we have to believe that carbolic acid is the only agent, because it destroys vegetable growths, for several other substances used about wounds appear to be more potent in destroying and preventing the same kind of life. But carbolic acid doubtless has its advantages, which we may not yet wholly understand. One is, that it possesses the peculiar power of transudation directly through the tissues, and another is that it is an anæsthetic, as any one knows who has applied it to the raw surface in burns and scalds. We must not forget, however, that while the comparative results which Mr. Lister shows are exceedingly good, they are no better and sometimes not even so good as others here given. There is probably no test so good as the results of amputations, especially of the larger limbs, for there may be every degree of injury in compound fractures and the like, and it is on these that the friends of the Lister treatment lay great stress. How poor has been the success in these cases in some instances, we may judge from the fact that M. Labbée tells us, before the use of the antiseptic dressing in his hospital, compound fractures (fractures compliquées) were usually fatal. It is extremely difficult to get at the actual facts when statistics are given, but we may safely guarantee that few if any of the disciples of Lister have equalled the statistics of Burow, father and son, where 123 amputations were performed with only 9 deaths, of which there were 33 amputations of the thigh, with only 6 deaths, the dressing used in this case being the acetate of alumina; and they have certainly never surpassed the results of Alanson, of Liverpool, who, according to Dr. Stephen Smith, in the year 1779 reported 33 consecutive amputations of the thigh in unselected cases, with no deaths at all.

Correspondence.

THE TREATMENT OF CHLOROFORM POISONING.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The deaths from chloroform in the new year are already forming subjects for consideration, as is evident from the articles referring to them in recent numbers of your valuable journal.

In neither of the cases mentioned in the RECORD, were the apparent antidotal properties of the nitrite of amyl tested. Both in a recent paper,* and in articles upon the subject, I have shown that physiological experiments upon animals, and trials with it upon the human subject in apparently impending collapse from chloroform, have developed an antagonism between the effects of chloroform and nitrite of amyl. My object, at present, is to call attention to these properties, with the hope that "the nitrite of amyl may be at hand as one of the remedies, whose efficiency is to be tested in case of impending danger," from chloroform. It may be easily carried in the glass capsules which are made for that purpose, may be administered hypodermically, or held to the mouth during artificial respiration, and its use is not considered dangerous, at all events, in ordinary doses, by those who have tried it fully. There are so many who still consider chloroform as a safe anæsthetic that it will not yet be abandoned, and therefore any method or medicine, which is likely to avert those dangers which attend so unexpectedly the use of chloroform, is worthy of a trial.

Respectfully,
F. A. BURRALL, M.D.

PNEUMONIA ARRESTED IN FIRST STAGE.

TO THE EDITOR OF THE MEDICAL RECORD.

INSTANCES of resolution of pneumonitis in the first stage, though mentioned by a few writers, are rare enough to warrant the publication of the following case:

H. C., ætat 42, a strongly-built man, of regular habits, sent for me January 1st, 1877. Late on the preceding evening he had been seized with a violent chill, followed by fever, pain in right chest, dyspnœa, and headache. On my visit, at 2 P.M., his temperature was 101.6°; pulse, 128; respiration, 26; pain, increased by coughing or breathing, in axillary region at level of right nipple. Inspiratory crepitus and scarcely perceptible dullness over a place about the size of a hand-palm. Cough frequent; sputa tenacious and colorless. I ordered turpentine stupes, to be repeated twice in the twenty-four hours, followed by cotton-batting and oiled-silk jacket, and prescribed tinct. aconit. rad., ℥j.; liq. morph. sulphat. magend., ℥j.; vin. ipecac, ℥ v., in mixture every two hours.

Jan. 2d, 2 P.M., temp. 100.1°; pulse 104; respiration 20. Slightly delirious during night; pain easier, but still distressing on coughing; dullness not increased; subcrepitant râles; sputa more abundant; mucus, not at all "rusty."

Jan. 3d, 1:30 P.M., temp., 101°; pulse, 104; respiration, 17; cough, very "loose," but not frequent; sputa mucus, profuse and colorless; pain quite re-

* N. Y. Medical Journal, Nov., 1876.

lieved; large moist râles on right side; percussion sound normal.

Jan. 4th, 2.30 P.M., temp. 103°; pulse, 108; respiration, 24; cough almost gone: "sputa cocta"; pain felt only on deep inspiration. Bowels not having been moved for forty-eight hours, ordered magnes. citrat., and, in addition to the aconite mixture, quiniæ sulph hat. grs. iv *per die*.

Jan. 5th, 2 P.M., temp., 100.3°; pulse, 96; respiration, 17.

Jan. 6th, 2 P.M., temp. 98°; pulse, 84; respiration, 16; and thenceforth recovery was uninterrupted.

Concerning the diagnosis at the outset, I think there can be little doubt. The interesting feature of the case is the apparent relief of the engorged tissues by copious mucous secretion without capillary rupture or hepatization. At no time was there any semblance of "rusty" expectoration, nor any physical signs of the second stage of pneumonia. The marked rise of temperature on the 4th seems to have been due rather to intestinal irritation than to any pneumonic process, and can scarcely be ranked with the elevation which sometimes precedes defervescence in severe cases. The cotton and oiled-silk jacket was worn steadily, and the turpentine stupes applied morning and evening while the pain lasted. Whether treatment served to limit the morbid action, or whether there are occasional cases in which pneumonia is spontaneously aborted in the first stage, is a question which future observation may decide.

ALFRED L. CARROLL, M.D.

NEW BRIGHTON, N. Y.

REPORT OF TWO CASES OF PLEURITIC EFFUSION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I send you a report of two cases of pleuritic effusion, which may prove interesting to the readers of your JOURNAL, in connection with Dr. Robinson's article recently published by you.

In September, 1876, I was consulted by Col. S., aged about 70, an unusually stout and well preserved man for his age, with regard to a pain in his right side. Physical examination failed to reveal a pleurisy. The pulse was not accelerated, neither was there dyspnœa on exertion. As Col. S. was going about as usual, I made no thermometrical examination. I was able to exclude neuralgia and all hepatic trouble. As the pain was most severe about the eighth and ninth ribs laterally, I concluded it must be myalgic. This opinion was farther strengthened, when, in reply to my question, he replied, that a few days before, to keep himself from falling, he had made a violent muscular exertion, and immediately felt a pain in his right side, which he described as a cramp. I placed him on tonic treatment, and applied an aconite liniment over the painful part. He remained in Frankfort two weeks after this; seemed to improve, and continued to attend to his business as usual. About October 1st he went to his plantation in Arkansas. I learned that he grew constantly worse after leaving Kentucky. Some time during this month he consulted a physician near him, who told him he had neuralgia. I do not know that any physical examination was made, at least his condition was not made known to him. Col. S. continued to take moderate exercise by riding over his plantation and occasionally fishing, though he complained more after exercising than he did when in Kentucky. He was never confined to his bed. Continuing to grow worse, however, he concluded to go to New Orleans and consult Dr. Choppin. Arriving there November 2, Dr. C. was at once called to see him on board the steamer. He pronounced Col. S.'s condition a very critical one, because of extensive pleuritic effusion. A few hours afterward, his son left him for a few moments, and on returning, found his father dead. The death was from apnœa or possibly from the twisting of some large blood-vessel upon itself. No post-mortem examination was made.

This case is an illustration of the too common occurrence of sudden death from effusion into the pleural sac.

I cannot say that I made a culpable error in diagnosing this case during the time he was under my care. With the exception of pain, the rational symptoms of pleurisy were absent. There might possibly have been slight pleuritic effusion, when I made the physical examination. Fraentzel, for himself, and quoting Wintrich, denies the possibility of diagnosing slight pleuritic effusion. I am certain there was no pleuritic friction sound, and I believe in most cases of *subacute* pleurisy this physical sign is absent. After the effusion became more extensive, the nature of the trouble was the more evident. I have but little doubt that Dr. Choppin would in a day or two have relieved Col. S. (at least temporarily), by the use of the aspirator. The case is, at least, instructive in its clinical history and final result.

Mr. N., aged 45, was taken sick Jan. 15, 1877. As I was absent from home, from this time until the 24th, he was attended by Dr. Wilhoite. Dr. W. diagnosed pleuro pneumonia, and treated him accordingly, paying more attention to the pneumonia than the pleurisy. On the 23d, Mr. N. expressed himself as being much better, and dismissed Dr. W., who supposed his patient convalescing. January 30th I was sent for. Pulse, 96; respiration, 24; temperature, 101°. Left side half an inch *smaller* than right; respiratory movement *quite marked*; fremitus on left side almost disappeared; flatness over same side complete, except immediately under clavicle, where Skodaic or tympanitic resonance was quite marked, and also slight tympanitic resonance in supra spinous fossa; absence of vesicular breathing over left lung; bronchial breathing distinctly heard, and broncophony very decided over the posterior part of the lung. I could discover no ægophony nor gurgling. There was no displacement of the heart towards the right side, and no bulging of intercostal spaces. Left hypochondriac region slightly larger than right, but no perceptible displacement of the spleen. Succussion negative, and change of position made no alteration in area of dulness. Right lung normal.

Diagnosis.—Pleuritic effusion of left side, with possibly some inflammatory solidification of lung tissue. Ordered teaspoonful of Basham's mixture, t.i.d., and mercurial ointment to be rubbed into the side. (A year since I treated Mr. N. for pleurisy, with slight effusion of right side, with Basham's mixture and croton-oil paint. The success was perfect.) 31st, no perceptible change. February 1st, I was unable to see him. 2d, his son reports that his father complains of shortness of breath. February 3d (this morning), I concluded to aspirate the chest. On examination his condition was the same as on January 30th, date of my first visit, except that the breathing was more labored. I wish it distinctly remembered, that the left side was smaller than the right, by half an inch; respiratory movement well marked over this side; no bulging of intercostal spaces, and no displacement of the heart; its impulse, however, was unusually indis-

tinct and feeble, out of proportion to the volume and strength of the pulse. I introduced the needle of the aspirator in the eighth intercostal space, at the anterior border of the latissimus dorsi, and to my utter astonishment removed, by actual measurement, *three quarts and three ounces* of serum. The serum came into the cylinder of the aspirator, the last filling as readily as during the first, and showed no signs of increasing turbidity, but my hands were cramped from manipulating the piston and holding the instrument steady (which, by the by, is very tedious in a long sitting), and during a sudden movement of Mr. N. I incautiously let go, and the needle dropped out of the chest. I did not reintroduce it, being pretty well satisfied with the result already obtained. On examination, the line of dulness is lowered to the level of the fifth rib, but considerable thickening of the pleural sac is evident. I, of course, do not know how much fluid remained in the pleural cavity, probably two or three pints. I expected to find fluid, but was astonished at the enormous quantity which was in the chest—not because the chest cannot hold this much (a gallon being frequently removed or found at post-mortem examination), but because the usual evidences of excessive effusion, as bulging of intercostal spaces, increased size of affected side, and displacement of the heart, were absent. Fraentzel mentions the fact, that sometimes in pleurisy of left side the heart becomes attached to the lung by adhesions, and, therefore, cannot be displaced to the right, but I would think that if the lung be pushed so far up towards the apex (as it usually is), that it would certainly raise the apex beat of the heart very perceptibly. I offer no explanation of the other rare appearances, but merely state the fact.

The history of this case is of course incomplete, as I have it yet under my care, and may probably aspirate again. But the final result is (*to your readers*) of secondary importance to the fact of the peculiar conditions existing with such an amount of liquid. I send the report now, as it may serve as an illustration of some point discussed in the article on effusions into the pleural sac, published in the RECORD, and to which allusion has already been made.

For myself, I am a strong believer in early paracentesis thoracis (especially since the use of the aspirator), having this opinion inculcated by my father before me, who frequently and successfully resorted to this procedure.

W. B. RODMAN, M.D.

FRANKFORT, KY., 1877.

CROUP AND DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Together with many others of the medical public I have listened with great interest to the discussion at the Academy, still to be continued, on the relations between diphtheria and croup. I have been struck by the fact that, among all the opinions hitherto expressed, has not yet been presented the one held by so many European investigators: namely, that the croup which occurs in the course of diphtheria, is not a diphtheritic process, but an ordinary inflammatory process, *consequent* upon the local and constitutional conditions of the disease.*

When croup has been produced artificially in the larynx, by means of diphtheritic membranes introduced into the air-passages, the *appearance* of the croupal membrane has been identical with that of membranes formed after the introduction of chemical irritants, as ammonia.* Only in the latter case the false membranes were not contagious; in the former they proved to be so, by infecting the animals upon whom they were transported. All writers who rest the peculiarity of the diphtheritic exudations upon the presence in it of a special kind of bacteria (Micrococcus diphtheriticus, Klebs; Zygodesmus fuscus, Letzerich), admit that this parasite is never found in the larynx below the vocal cords. Senator, who denies the existence of special diphtheric bacteria, is nevertheless among those who admit a radical difference between the "fibrinous exudation in larynx and trachea," seated upon an intensely hyperæmiated mucous membrane, and the "exudation in the pharynx, composed of a network of degenerated epithelium, fine granules, and micrococci, which, as the disease progresses and *inflammation is set up*, becomes a true eschar, covering an ulcerated mucous membrane, and containing detritus of its surface, together with pus-cells and blood-corpuscles." "The characteristic lesion of diphtheria is an acute necrosis." "On the contrary, the croup membrane of larynx and trachea, is an exudation in the narrowest sense, consisting of fibrine and blood-corpuscles,"† or, as Wagner describes it: "The so-called croup membrane consists of a thick network of delicate fibres, and of extremely numerous elements, similar to pus-corpuscles, lying in its meshes. . . . It develops by degeneration of the cylinder epithelium of the lower larynx and trachea, in the same way as the diphtheritic membrane from degeneration of the pavement epithelium of the pharynx. . . Between the croup exudation and the surface of the mucous membrane, is a thin layer of muco purulent fluid, and underneath, the tissues are hyperæmiated, and the seat of a moderate infiltration of pus corpuscles and free nuclei, almost confined to the superficial layers. . . . But underneath the diphtheritic exudation, the infiltration is intense, and extends to the submucosa."‡

According to Buhl, this infiltration is the most characteristic circumstance in the local processes of diphtheria, and which most distinctly defines it as a "general infectious disease." The author compares the infiltration with that observed in the primitive lesions of syphilis and of tuberculosis. Croup, on the other hand, is a local inflammation—an intensification of a catarrh, *secondary* to diphtheria in most cases, even when occurring in the course of that disease. The mucous membrane is superficially infiltrated, but with pus-corpuscles, and not with elements, which, Buhl maintains, are in diphtheria derived from conjunctive tissue cells, and tend to organize.§ This doctrine corresponds to, although it be not quite identical with, the well-known distinction established by Virchow between "diphtheritic" and "croupal" inflammation.‖ It is much ridiculed by Sanné, author of a recent excellent systematic treatise on diphtheria.¶ "By a deplorable abuse of language," observes the French writer, "applying to pathological processes the terms which served to designate diseases, writers on the other side of the Rhine have, after the

* See Birsch Hirschfeld: Archiv der Heilkunde, 1873; Eberth: Ueber Diphtheritis; Letzerich: Archiv Virch., Bd. 53; Klebs: Ueber Diphtheritis: Senator: Ueber Synanche contagiosa. Volkmann Samm. lung, No. 78, 1874; Wagner: Arch. der Heilkunde, 1866, Bd. 7; Buhl Zeitschrift fur Biol., III., 1868; Rindfleisch: Path. Anat.; Waldenburg: Berlin, klin. Wochensch., 1872.

* Oertel: Deutsch. Archiv für klin. Med., 1871.

† Senator, loc. cit., also Buhl, loc. cit., p. 352: "After removal of the exudation there remains an ulcer with sharply jagged edges. . . . The essential part of the process is in the mucous membrane below the epithelium."

‡ Loc. cit., pp. 490–495, 496.

§ Loc. cit., p. 367. Organizing in the roots of nerves; this same infiltration determines the diphtheritic paralysis.

‖ Arch. Virch., 1847, Bd. 1.

¶ Traité de la diphthérie, 1877.

example of Virchow, called *croupal inflammation*, a phlegmasia, which, without involving the structure of the mucous membrane, deposits on its surface an exudation—a false membrane; and *diphtheritic inflammation*, an interstitial phlegmasia characterized by a sero-fibrinous exudation, which infiltrates tissues and causes their mortification. . . . Thus they have created the whimsical denominations, *croupal pneumonia*, *croupal nephritis*, on the pretext that in these cases the fibrinous exudation is effected into the pulmonary vesicles or the renal tubuli." *

Sanné considers equally *bizarre* the views of Wagner, who, "arranging pathology to suit his anatomical conceptions, maintains that a patient may have at the same time, by simple coincidence, two different diseases; diphtheria in the pharynx and supra-glottidean part of the larynx, and croup in the infra-glottidean part, and in the trachea."† "The only true view is to consider diphtheria as always the same process, susceptible of assuming distinct anatomical forms according to the organ on which it is localized."

Here the author makes the very confusion between the disease and the anatomical conditions which he has so emphatically condemned. The distinction is of importance precisely in relation to the question now under discussion at the Academy, namely, the identity or non-identity of sporadic croup, and of croup occurring in the course of diphtheria. The assertion of identity can mean nothing, except as regards etiology and contagion. The laryngeal lesions *are* identical as proved by the examination of both clinical and experimental cases. I have recently had an opportunity to examine the larynx and trachea in a considerable number of cases of diphtheric croup, and to compare them with a few of intense catarrhal laryngitis. In the former cases existed all the lesions of the latter, namely, fall of the epithelium, infiltration of the mucous membrane, by greater or less number of small round cells, great dilatation of blood-vessels, and frequent ecchymoses. The additional lesion in the croup was, of course, the false membrane, lying now upon parts where the epithelium was still intact, now where the mucous membrane had become denuded. The differences of opinion which concern the false membrane in the pharynx do not exist for the larynx; every one admits that it is a fibrinous exudation, whose organization into adhesions, similar to those of pleuritis and peritonitis, is only prevented by the rapid termination of the disease. "Fibrinous inflammations in general represent a more elevated degree of irritation than serous phlegmasiæ." "The blood is doubtless the principal source of the exudation, but it is not probable that this product of inflammation pre-exists in the blood. . . . We must admit that the inflamed tissues have the property of so modifying the serosity coming from the vessels, that this is changed into concrescible plasma or fibrine. This fibrinogen property would be due, according to Chalvet, to the process of denutrition which succeeds to the stage of cellular irritation, that is to say, to the materials accumulated during the *déchéance* of inflamed conjunctive tissues." ‡

Let it be admitted that tissues, dying from excessive hyperæmia when the blood in the diluted vessels has been altered by diphtheritic poison, would afford material possessed of more intensely irritative properties than those affected by the hyperæmia of ordinary catarrh. We should then approximatively understand the frequency of croup in diphtheria, as compared to its occurrence in non-specific pharyngitis, where the local conditions of irritation may be very much the same. But there is nothing to exclude the possibility of other causes concurring to produce the same result, namely, the communication of a fibrinogen property to the hyperæmiated epithelium or conjunctive tissues of the laryngeal mucous membrane. The question is, therefore, not Is croup diphtheria? but, admitting that diphtheria may be a cause of croup, Cannot croup be caused by something else as well?—as Oertel produced false membranes in the larynx and trachea of rabbits, by introducing on the one hand false membranes from diphtheritic patients—on the other, non-specific chemical irritants.

The distinguishing test has frequently been sought for—clinically, as in Oertel's experiments—in the capacity of these false membranes to infect other animals. I do not think that this experiment has ever been made with the false membranes derived from a case of "idiopathic" croup, although the contagiousness of this latter disease has of course been alleged as indisputable proof of its diphtheritic etiology. In the same way, the development of scarlatina in a family, immediately after a case of nephritis, awakens suspicion of the scarlatinous origin for the latter, in which a characteristic angina had been overlooked. But no one on that account would presume that nephritis could never be anything else than a symptom of scarlatina. The relations between diphtheria and croup may be aptly compared to those between scarlatina and nephritis. In each case exists a specific constitutional disease with lesions characteristic or even peculiar to itself, and in each case, also, these specific lesions may be accompanied by a varying cortége of non-specific lesions, which latter may be encountered in various other groups of morbid phenomena. In each case, finally, the anatomical products of these non-specific lesions may serve to transmit the specific disease, simply because all the particles thrown off from a living body at any given time tend to reproduce themselves in their entirety, consequently with the poison with which they have become impregnated while part of that body, as soon as they can find an appropriate soil for development. Living particles from healthy bodies only tend to grow, to excite excessive local growth; hence production of pus, when they can gain admittance below the epithelium of other living bodies.* Similar particles thrown off from diseased organisms, though from parts not exhibiting the specific lesions of the disease, must similarly tend—proportionately to the degree of constitutional infection—to reproduce themselves, and with themselves the poison. Hence the inoculability of croupous membranes from an individual affected with diphtheria would still not prove that these were in any sense diphtheritic—still less, therefore, that all false membranes in the larynx or trachea must be proof of diphtheritic poisons.

The above remarks apply especially to the croup of children, in whom, from the smallness of the throat, the larynx lies much nearer to the seat of irritation set up by pharyngeal diphtheria, and inflammations from contiguity and inflammatory œdema are therefore facilitated. In the much rarer cases of croup complications, in the diphtheria of adults, it is admitted that a true *extension* of the original diphtheritic process will much oftener be found. In the single case we have had an opportunity of examining (only macroscopically), the epiglottis and entire larynx were

* Loc. cit., p. 24.

† P. 40.

‡ Lancereaux, Anatomie Pathologique, p. 237, 1875. According to Buhl, the proliferating epithelium form within themselves a substance similar to fibrine, and throw it off together with the pus-corpuscles.

* Essentially the theory of Beale, which seems to us much more comprehensive than that of specific bacteria.

ulcerated and covered with pultaceous exudations, entirely resembling those of the pharynx. Wagner, especially, gives a special description of laryngeal diphtheria in *adults*. Besides the theoretical interest of this question, is a practical inference from the theory of croup as an inflammation induced by intense irritation of adjacent parts: we should be cautioned against irritating therapeutics, which may serve to precipitate the very lesion they propose to heroically avert.

M. P. Jacobi.

110 West 34th Street.

HYDROBROMIC ACID AND QUININE.

To the Editor of The Medical Record.

Dear Sir:—In No. 320 of the Medical Record there was published a communication in regard to the use of hydrobromic acid in combination with quinine, as a means of preventing the tinnitus aurium caused by the latter remedy. The statement is made by the correspondent, that the acid may be given in doses of a half drachm, combined with quinine, and enclosed in capsules.

Hydrobromic acid, like its analogous compound, hydrochloric acid, is a gas in its pure state at an ordinary temperature. It liquefies at a temperature of 100° below zero, and becomes solid at 124°. The gas is very soluble in water, a concentrated solution having a sp. gr. of 1.486. (See Brande and Taylor's "Chemistry.") This solution is a very caustic liquid, and cannot, except when largely diluted, be administered internally. In no manner can half a dram of this liquid be combined with quinine and given in a capsule.

The following prescription was given in that communication:

℞ Quin. sulph..... ʒ i.
Hydrobromic acid,
Aqua.....āā ℥ iss.

With the statement that two teaspoonfuls contained five grains of quinine.

If any physician should write this prescription without giving specific directions as to the strength or manufacture of the hydrobromic acid, very serious results would be likely to follow. The druggist in preparing the prescription would probably use the acid made by Merck, or that of some other manufacturer equally strong. The effect of an acid as corrosive as the concentrated hydrochloric acid, diluted with only an equal portion of water, would indeed be serious, if not fatal. It was only by the intelligence of one of our Brooklyn druggists that a disaster from this cause, and probably having its origin in the communication referred to, was prevented.

It is true that Fothergill's formula for preparing the acid was subjoined to the prescription of your correspondent. How few physicians can stop to inquire of druggists if they have the acid prepared according to this formula! How few will subjoin the formula to their own prescriptions! And how few will think or know of the difference in strength between this acid and that prepared by Merck.

I know nothing of the therapeutic effect of this acid, but if it will indeed prevent the tinnitus aurium of cinchonism, we shall be glad to see an officinal "Dilute Hydrobromic Acid" entered in its proper place among the medicines of our pharmacopœia.

M. D.

Charity Hospital.—Dr. John J. Reid has been appointed visiting physician to Charity Hospital, vice Dr. W. DeForrest Woodruff, deceased.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 11 to 17, 1877.

Jaquett, G. P., Assist. Surgeon. Granted leave of absence for one month on Surgeon's certificate of disability. S. O. 34, Dept. of the South, Feb. 15, 1877.

Comegys, E. T., Assist. Surgeon. To rejoin his proper station, San Felipe, Tex. S. O. 26, Dept. of Tex., Feb. 8, 1877.

Buell, J. W., Assist. Surgeon. Assigned to duty at Fort Concho, Tex. S. O. 23, Dept. of Texas, Feb. 5, 1877.

Bedal, S. S., Assist. Surgeon. Dismissed from the service. G. C. M. O., No. 18, A. G. O., Feb. 10, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending February 17, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Feb. 10.....	0	2	61	3	13	48	0
Feb. 17.....	0	7	67	3	2	42	0

The Association of the Alumni of the College of Physicians and Surgeons, in the City of New York, 1877.—The annual meeting of the Association will be held at the College building, corner of Twenty-third street and Fourth avenue, on Wednesday, Feb. 28, 1877, at 8 o'clock P.M.

The annual dinner of the Alumni Association will be held, March 2, 1877, at Delmonico's. Tickets may be procured of any member of the committee, George M. Lefferts, John C. Barron, F. P. Kinnicutt, T. M. Cheesman, or F. P. Foster.

Variableness in Tinctures and Fluid Extracts.—Mr. C. K. Smith obtained from six manufacturers samples of fluid extracts sold by them. These he evaporated to a pilular consistence, and weighed the residue. The same quantity being in each case taken, the results were as follows:

	1	2	3	4	5	6
	grs.	grs.	grs.	grs.	grs.	grs.
Ext. gent. fluid.	360	800	1070	720	1440	850
" sennæ "	840	1010	720	540	1280	825
" rhei "	480	1235	1210	960	1500	800
" scillæ "	1000	1068	13 0	800	1080	1080
" ergotæ "	480	420	550	480	780	780

Mr. Wm. D. Robinson examined seventeen samples of *Tinc. Cinch. Co.*, in which he found the total quantities of alkaloids present represented by the following percentages: .287, .81, .871, 1.03, 1.09, 1 13, 1.20, 1.27, 1.38, 1.62, 1.71, 2.05, 2.13, 3.09, 3.11, and 4.46. —(*Am. Jour. of Pharmacy, Jan.*, 1877.)

Pathology at the Roadside.—An extraordinary scene was witnessed a short time since on the public road near the village of Carrington, a few miles from Edinburgh. An old woman had died suddenly at

that village at the beginning of the week, and post-mortem examination had been ordered by the parish authorities. According to instruction, a medical man, accompanied by his assistant and a sheriff's officer, went to the house of the deceased for the purpose of making the examination. To their surprise, they were told, on arrival, that the corpse was on its way to be buried; upon which they hurried after the funeral party, and caught them up before the graveyard was reached. Their proposition that the body should be taken back to the house for the intended examination was resisted by the people in charge of the funeral; and the sheriff's officer had to stop the coffin, which was being carried country fashion, and placed it upon a roadside heap. The doctor had the coffin opened, and there and then made his examination of the corpse. This over, the coffin-lid was refastened and the funeral duly proceeded with.—*British Medical Journal.*

Extreme Plumbism treated by Galvanic Baths.—Mr. S. J. Knott, Medical Superintendent of Galvanism to St. Mary's Hospital, reports (*London Lancet*, No. 16, vol. ii., 1876) a case of extreme and well-marked plumbism, that for five months and a half defied all drugs as well as local faradizations and galvanizations, and yielded promptly to galvanic baths. The patient was admitted to the hospital, June 22, 1875. Had lost control of both flexors and extensors of upper as well as lower extremities; also exhibited aphonia, great emaciation, constipation, etc.; blue line of margin of gums well marked; history of plumbism, including several attacks of colic. The urine yielded gr. $\frac{1}{4\frac{1}{5}0}$ of lead per fluid ounce. On December 4th, all other treatment having in the meantime proved unavailing, the daily administration of galvanic baths was begun. From this date he commenced to improve. All medicine was soon discontinued, the baths constituting the sole treatment. A few weeks sufficed to effect a complete cure. Dr. Handfield Jones tested the water of the bath both before and after this; the results before the bath were negative; after the bath well-marked traces of *lead* were found. Under the influence of the baths, the patient seemed to undergo a perfect regeneration of muscular fibre. Mr. K. also states that cases of ordinary lead colic and dropped wrists treated by this method have recovered in a few days, without medicine.

New Thermo Cautery.—Dr. Paquelin (*Lancet*, January 20) has devised a new apparatus for thermo-cautery, which is simple, handy, and efficient. It consists of a hollow handle, insulated with wood to protect the hands from the heat, and is furnished with movable platinum heads, corresponding in form to the cautery irons found generally useful. Into these cauteries, which are hollow, after they have been heated to blackness in the flame of a spirit lamp, a blast of benzoline vapor is introduced by means of an ordinary spray bellows, which at once raises to and maintains them at a state of vivid incandescence. The heat thus produced can be kept up for an indefinite time by slightly compressing the bellows occasionally.

Treatment of Typhoid Fever.—Recently a long and spirited discussion, upon the treatment of typhoid fever, took place at the Société Médicale des Hôpitaux. The question turned upon the value of the cold bath as a therapeutic agent. The experiences of the Parisian physicians, during the recent epidemic of typhoid, so far from establishing the value of cold baths as compared with other remedial agents, really prove that the mortality is somewhat increased by them.

A Piece of Glass Swallowed.—Mr. Erson (*Lancet*) reports the case of a man who swallowed a triangular piece of glass, three-quarters of an inch in length, while drinking some beer. The foreign body safely traversed the intestinal canal, and being caught in the lower portion of the rectum, was easily removed by operation. The case is worthy of note, considering the nature of the obstruction and the escape of any injury to the intestines during its perilous passage.

The Convict Insane.—Dr. Carlos F. MacDonald, the recently appointed medical superintendent of the State Asylum for Insane Criminals at Auburn, N. Y., in his report for 1876, says: "I may, however, briefly allude to one fact, in relation to insane *convicts*, which I do not remember to have observed during an experience of several years in a hospital for the ordinary insane, and which has fully convinced me of the wisdom of providing a separate institution for the treatment of this class of patients. The fact to which I refer is the frequency of cases, among the *convict* insane, in which "sin and madness" are so closely allied as to almost defy separation; and I am obliged to confess, that during my short experience here, I have met with a few cases in which it was very difficult to decide whether the principle underlying their outward manifestations was depravity or disease. According to my observation, the chief characteristics of these cases are absence of moral sense, absence of delusions, while the intellectual faculties, such as they are, apparently remain intact. They seem to have the arts of lying and theft developed to the highest degree, the former of which they diligently make use of to create mischief and disturbance. They have bad tempers, which they not infrequently exhibit, their paroxysms of passion being followed by a sullen, moody state."

Salaries of Professors in the German Medical Schools.—In Prussia and several of the duchies the salaries of the medical professors are not fixed by law, but practically they do not descend below a fixed minimum figure. They vary between $450 and $1,900, to which must be added the indemnity for lodgings paid to those members of the corps of teachers who do not reside in the universities. In Switzerland the salaries of the regular professors vary from $500 to $1,000, but certain chairs are specially endowed, and the government often pays more to teachers whom it is desirable to retain in the country. In Russia the regular professors receive about $2,000, and the assistants about $1,350, but the figure varies according to the importance of the university and the value attached to the services of an individual teacher by the government. In Tübingen the salaries are fixed at $1,800, $2,000, and $2,200 for the three grades of professorships. In the three universities of Bavaria the professors receive about $800, and the assistants about $600, with a small increase after every five years of service. In Austria the salaries have often been changed. The law of April 9, 1870, fixed the salary of professors in Vienna at $1,100, in Prague at $1,000, and in Innsprnck, Gratz, &c., at $900. There, too, there is an increase of salary after every five years of service, and also a sum allowed for house hire.

These salaries are not large, but the professors may also make private contracts with the government, and in that way the more illustrious among them receive more adequate compensation. Some of them receive salaries of $3,000, $4,000, and $5,000. Prof. Recklinghausen receives $6,000, and with the fees of the students his chair is worth more than $8,000.—*Lyon Médical*, Oct. 15.

Original Lectures.

ON THE PLANS FOR THE JOHNS HOPKINS HOSPITAL AT BALTIMORE.

A LECTURE GIVEN TO THE MEDICAL PROFESSION OF BALTIMORE, FEBRUARY 5, 1877.

By J. S. BILLINGS, M.D.,
SURGEON UNITED STATES ARMY.

Part I.

Gentlemen:—Before a final decision was made on the plans for the Johns Hopkins Hospital, prepared and submitted to the trustees last year, it was thought desirable that they should be compared with the most recent plans for similar institutions in Europe, and that opinions and criticisms upon them should be obtained from those who have given most attention to such subjects abroad as well as at home.

For this purpose, and also for others connected with my duties at Washington, having obtained a leave of absence, I landed at Queenstown, October 16th, and re-embarked from Liverpool, December 16th, having during the sixty days of interval visited the principal cities in Great Britain and Western Europe, and having at each place examined the hospitals and medical schools, and conferred with those most interested in such matters, so far as the very limited time at my disposal would permit. On my return I presented briefly the results of my observations and inquiries to the trustees, and it has been thought that a part of this statement might be of interest to the medical profession in this city, hence I propose to-night to speak of the hospital and its plans more especially from a professional point of view. I do not propose to go into details as to what I saw and heard in Europe, but merely to state general conclusions. I may say, however, that I was everywhere received with the greatest kindness and hospitality, and every facility was given me to see what I wished to see,—that I found the Johns Hopkins trusts well known by name everywhere, and that much interest and curiosity is felt by medical men there as well as here as to the course which is to be taken by this medical school and hospital.

One of the objects of my visit had reference to the extension and improvement of the National Medical Library at Washington, and a comparison of its resources and mode of management with those of some of the celebrated collections of Europe. I find that in point of size this is one of the largest separate medical libraries in the world, the largest ones in Europe being those of the Royal College of Surgeons, and of the Royal Medico-Chirurgical Society of London, of the Royal College of Physicians in Edinburgh, and of the Medical Department of the Prussian Army at the Friedrich Wilhelm Institut at Berlin, which last is under the charge of an army surgeon, Dr. Sachse, and is one of the most valuable and best arranged on the continent.

With reference to the subject of medical education, and the views which I have elsewhere expressed as to the relations which should exist between the hospital and the medical department of the university, I find that I am in accord with all or nearly all of those whose opinions on this matter I was able to obtain. These views may be stated as follows:

The ideal medical student for this university should be a graduate in arts, and should have taken a special course during the last one or two years of his academic career. He should then spend two years in the study of the theoretical branches and in work in the dissecting room and laboratories. The next year, while continuing these studies, he should begin clinical work in the dispensary, and be shown certain cases in the hospital. The fourth and last year he should devote entirely to the study of disease, and for this purpose he should reside in the hospital. Having completed this course and graduated, the post of resident physician for another year is open to his competition, or he can take a special course suited to make him an expert in state or preventive medicine. A student from another school should be allowed to take that place in the course which proper tests show him to be fitted for, and the idle or incompetent should be unsparingly thrown out by a series of successive examinations. As the graduating class is to reside and be employed in the hospital, its number must be limited by the plan of construction, and the number I have selected is twenty-five.

Thus far I have considered the question as if the object of this hospital, so far as it is to be a part of the medical school, were to allow the students to become acquainted with the forms and accepted modes of treatment of various diseases in order that they may recognize and similarly treat them when met in their practice, thus doing merely what other hospitals connected in like manner do, only perhaps a little better and more thoroughly than is usual. But is it not also possible that in this hospital every instrument of precision and means of investigation known to the physicist, the chemist, and the physiologist, may be applied to increase our knowledge of disease and of the action of remedies, by or under the supervision of men specially trained to observe, accurately record, and scientifically deduce from such records new points for inquiry, and new means of making such inquiries, and so on in a sort of arithmetical progression? Here and there in the world there are a few men engaged in such researches, but they are few and widely scattered; those who have the means usually have not the time, and those who have the time have not the means. It requires, moreover, something more than time and means to make valuable observations in so difficult a science as medicine; to get the best results, the observer must have, besides natural ability, a special training. In short, I would have in this hospital the professors and lecturers and students all to be seekers and learners together, each in his own place, and if twenty-five, or ten, or even only three such graduates as I would have them, can be produced each year, it will repay the effort. They will be fitted to be general practitioners no doubt, but they will also be fitted to undertake special work which the average graduate would not dream of attempting.

I do not find that those physicians whom I have consulted at home and abroad think that this is aiming too high; at all events, no harm can come of trying. If there are any young men in this country able and willing to do such work as I have indicated, let us give them the opportunity to do it; if there are none, we shall not be worse off than other hospitals, at all events. I am not aware that there is at present any urgent demand either by the medical profession or the public for more doctors, certainly not for more than the institutions at present engaged in manufacturing them are able to supply; but there does seem to be a demand among the leading thinkers among our physicians, for some men fitted to be investigators and discoverers.

Two objections have been made to this plan. The first is offered by some American physicians, who fear that the requirements are so great and the course of

study so long, that there will be very few students—too few, in fact, to warrant the keeping up of a proper staff of teachers.

They think, however, that the experiment is worth trying; and from what I know of the number of American medical students who yearly go abroad, I have little doubt that if Baltimore give the means for such a post-graduate course, as I am sure can be organized here, there will be no lack of candidates.

Such a medical school, it is evident, is not in antagonism to existing medical schools; it has a different purpose, and its means of fulfilling it must also differ.

The second objection made is, that the number to which the graduating class is limited is too small: that there will be many medical students who will wish to avail themselves of the special advantages of this university, and that it is bad policy to exclude any.

To this I would say, let the best man win; twenty-five students are probably as many as can be trained to the best advantage in this hospital, and what should be aimed at is quality not quantity. Some German physicians think that the course of medical instruction should occupy six or seven years, as in the new school at Geneva, or as in Sweden, taking the ground that the graduate should be master of all the resources of his art.

Without attempting to fix the precise time to be occupied in study, since some will learn as much in three years as others will in six, it does not appear to me that the purpose of this school should be to turn out finished physicians, so much as to fit men for study and investigation by themselves. For instance, I think it highly desirable that a young man intending to be a physician should learn enough of the art of drawing to enable him to note distinctly any peculiarity of form of the body, or of its organs; and if he can copy shades of color, so much the better; in part because he thus learns also to observe closely and accurately, in part because it is a powerful aid to his memory, and as a means of explanation; but I do not think it necessary that he shall be qualified to lecture ex cathedra, and without previous preparation, upon any medical subject selected at random, in the style that would be expected of an experienced professor.

With regard to the various medical schools which I saw, I shall here say but little, proposing to take up this subject in detail at another time. I may, however, refer to one which must always have an interest to American physicians, since it is the one which served as the model for our own, having been a century ago the most celebrated school in Europe, to which resorted those of our young men who, on their return, became the medical teachers and leaders of the New World; I mean, of course, the Medical Department of the University of Edinburgh.

This still has much the largest classes of any medical school in Great Britain, and there are several causes for this. Of these, an important one, and the one upon which most stress is laid by the Edinburgh men themselves, is the peculiar system of what are called extra-mural lectures which prevails there.

Any man who can pass a moderately severe examination, and is accepted by the University authorities, may lecture on any one subject in the medical curriculum that he chooses, and his certificate that the student has attended his lectures is of equal value before the examining board with that of the professor. He must charge the same fees that the professor does, and the students can only take a certain proportion of their tickets from the extra-mural teachers.

It might be supposed that as the professor is the examiner he would have the advantage, but impartiality is secured by placing on the examining board men who are not professors, and who are sometimes extra-mural teachers.

To obtain the degree of Bachelor of Medicine or Master in Surgery, the candidate must have studied these subjects for four years, and must have a good general education as tested by examination, or by the presentation of evidence that he is a graduate in arts. The degree of Doctor of Medicine is given two years later.

It will be perceived that a set of young professors in the shape of the extra-mural lecturers are continually in training, and that the professor himself is constantly stimulated to do his best, since he cannot fall into an easy-going jog-trot routine without soon suffering from the competition of his rivals, over whom he has some advantages, it is true, but by no means enough to enable him to rely solely upon them to retain his pupils.

In the larger medical schools of France and Germany, it seemed to me that the great clinical advantages which they present form their chief recommendation, and that the best results can only be obtained by those who go there with a very considerable stock of preliminary knowledge.

In the laboratories, physiological and pathological, of the German schools, there is for those who are fitting themselves to be general practitioners, rather too much of a forcing process in the stimulating to and requiring of some one piece of original work, instead of trying to make a man fit to undertake any original work that may present itself.

The student is led to think that his highest object should be to perform some experiment or make some observation which has never been done before, and for this purpose he may work a year in the laboratory and yet acquire but a tithe of the knowledge he went there to obtain. As a rule, it seems better that such special researches should follow and not precede general culture; if the foundation is narrow, the superstructure cannot be wide and firm.

Of buildings devoted to medical schools, I was much pleased with those at Manchester and Liverpool. Those at the latter place are all of one story, giving fine facilities for light and ventilation.

The arrangements of those at the Owens College in Manchester are also good, but they are too far from the hospital, and when there is space available, it seems to me that laboratories and lecture-rooms had better be in one-story buildings.

With regard to the vexed question of hospital construction, it seems that the majority of those who have given especial attention to this subject, prefer wards of one story, especially for surgical and obstetrical cases, and favor isolation and separation of the several buildings.

I have not found it possible to obtain positive reliable data as to the effects of various plans of existing hospitals upon the health of the inmates, except in a few special and aggravated cases. As a rule, each person thinks the system with which he is most familiar is the best; one may try to go behind the dogmatic assertions and find out upon what they are founded, but the result is negative.

Mortality statistics are of little use for this purpose, since the character of cases received varies so much. I tried at first to get the statistics of certain classes of cases, such as compound fractures and dislocations, and outbreaks of erysipelas and septicæmia—or of diseases arising among the hospital employees; but I

was soon convinced that these depend far more on methods of management and treatment, on the preservation of cleanliness, and on care in the use of antiseptics and disinfectants, than on the plan of the hospital; and that where what is known as "Lister's method." is regularly and methodically employed in the hospital, its healthfulness cannot be estimated by the statistics of the surgical wards.

I was acquainted with Mr. Lister's teachings before visiting Europe, and assented to them in a theoretical sort of a way; but at the same time I looked upon the antiseptic method as being the latest fashion, and therefore probably overpraised. But after learning the results of its employment in the hospitals at Bonn, Leipzig, Berlin, and in certain wards in London, and especially after an examination of Mr. Lister's wards in the Royal Infirmary at Edinburgh, and seeing the cases dressed in all stages after operations—operations such as opening the knee-joint, or upon abscesses of spinal origin—I came to the conclusion that this method is the most important contribution to our resources in surgery which has been made since the discovery of anæsthesia. Not that the details of the method are perfected, for probably much may yet be done to simplify it, and we may perhaps discover a better material for the purpose than carbolic acid; but we now may be said to know positively, instead of merely conjecturing, that the process of putrefaction is due to minute solid or semi-solid particles floating in the air, and that Mr. Lister has devised a method by which these particles can either be kept out of a wound made by the surgeon, or by which they will have their power of producing the putrefactive change destroyed, is, I think, beyond doubt.

The fact that the various changes in organic matter which we know as fermentations, putrefaction, etc., are due to minute organisms, which organisms are not spontaneously developed, but arise from similar organisms only, is one of great importance in hospital management.

Perhaps you are not all familiar with the exceedingly careful, minute, and laborious researches which Mr. Lister has made on this subject of the germ theory, and the development of bacteria, and I would therefore call your special attention to papers published by him in the Transactions of the Royal Society of Edinburgh for 1875, and the *Microscopical Journal* for 1873. I had the opportunity of examining his specimens and apparatus, including some of which he has not yet published a description, and from these, from the clinical results obtained by him and by those who have properly used his methods, and from the researches of Dr. Burdon Sanderson on Contagion, and of Tyndall and others on Dust, I think it may be considered as certain that the dangerous thing in a hospital is a dust, an excessively fine, organic dust, which is almost omnipresent, which is in the air, the bedding, the hair, and the clothes of all occupants of the buildings, and the particles of which are so minute, and have so low a specific gravity, that their rate of fall through the air when it is perfectly still, may not exceed two inches per hour.

Some of these particles are living organisms, spores of fungi, bacteria, microzymes, of various kinds, some vegetable, others animal in character.

These living organisms when first produced, and in a state of activity, are more or less gelatinous in consistence, and will adhere to any surface with which they come in contact. While in this condition, they are not found in the air to any great extent, but exist in fluids, discharges, and moist places. In this condition they can be filtered out from the fluids which contain them, and these fluids thus filtered, lose their specifically dangerous qualities. They soon dry—at least on the surface, and in this condition lose their adhesiveness, and are easily detached and carried about by currents of air. To enable them to develop and multiply and reproduce their kind, which they sometimes do with amazing rapidity, there is necessary the presence of moisture and of organic matter. For our purposes, we may divide these living organisms or microzymes into two classes.

The first includes the ordinary forms which are found everywhere, and which are the efficient causes of mould and mildews, and of fermentations and putrefactions. Under ordinary circumstances we know that these are not dangerous. We can hardly draw a breath without inhaling them; we cannot take food, or water, or milk, without swallowing them. It is believed by Mr. Lister that healthy living tissues are capable of preventing the development of these low organisms in their immediate vicinity.

This is perhaps doubtful, unless by immediate vicinity is meant actual contact, but it is certain that unhealthy tissues and fluids in the body may favor their development. In these unhealthy tissues, these common forms appear sometimes to acquire new and specific powers by successive development, so that it is possible to produce from common harmless forms, by successive inoculations, other forms which act as specific morbid poisons in a healthy organism.

The second class of microzymes includes those which are not everywhere present, but for the most part arise only in diseased men and animals, and appear to have the power of producing diseased action even in perfectly healthy tissues. These constitute what is called contagium, and are what we have in mind when we speak of the germ theory of disease.

All problems of isolation and disinfection in a hospital have reference to these contagia only, for there is no isolation or disinfection which will rid us of the microzymes of the first class.

The vitality of these germ is destroyed by a dry heat of 240° F. continued for three hours, and upon this fact is based the principle of the disinfecting ovens and stoves, which are coming more and more into use in Europe, and especially in Great Britain. A careful series of experiments on this subject has been made under the supervision of the medical officers of the local Government Board, with the result of especially approving a form in which the heating is effected by gas, and the products of combustion are allowed to pass into the heated chamber. The results which have been obtained from the use of these ovens in Great Britain, and by the methods of disinfection employed under the direction of the Boards of Health of New York and New Orleans, fully warrant the conclusion that we can destroy these minute germs in clothing, in bedding, and in habitations. Besides these microzymes we have also, in a hospital ward, other particles of organic matter, not living, derived from the surfaces of the skin and mucous membranes, and especially from the mouth and air-passages during respiration, which are important as furnishing nutriment and means of development to the microzymes above mentioned.

Perhaps, although with our present knowledge we can hardly say that it is probable, we may also have in the ward certain complex vapors or gases of organic origin which are dangerous. It rarely occurs that in any ward there are enough of the known poisonous gases, such as sulphuretted hydrogen and carbonic oxide, to produce poisonous effects, and I presume that I need hardly assure you that that great bugbear,

carbonic acid, about which popular lecturers on ventilation discourse so learnedly, is never a dangerous impurity in a hospital. I saw, however, two hospitals in Europe where openings had been made from the ward to the external air at the level of the floor, in order "to let the heavy gases, and particularly carbonic acid gas, run off." As there are no heavy gases near the floor in any greater proportion than there are at the ceiling, it is clear that the result desired could not be obtained.

It is curious to note how widely spread are the fallacies that carbonic acid is the dangerous impurity to be got rid of by ventilation; and that as it is heavier than ordinary air, it will sink towards the floor and be found there in increased proportion. These fallacies are usually urged by those who advocate a downward system of ventilation; the law of the diffusion of gases, and the actual effects of carbonic acid on the animal system being apparently unknown to them. The question assumes a different aspect when we know that the dangerous impurity is particulate or a dust. This is slightly heavier than the air, but settles very slowly, and is carried up by very feeble currents. Probably, however, it will be found in greatest quantity near the floor; but the difference is not very great.

In a hospital ward properly managed, the object, so far as purity of the air is concerned, should be as follows: First, to prevent the development of any of the contagious germs in the ward by not admitting to it patients whom we have reason to believe are producing them; or, where this is impossible, by destroying their vitality while yet in the moist condition.

This involves isolation, and the methodical use of antiseptics and disinfectants in connection with all excreta and discharges. It also involves keeping the wards, floors, and walls as dry as possible. New hospital wards in brick buildings are very apt to be unhealthy, and this seems to be due to excess of moisture in the walls. When the new building for the Royal Southern Hospital at Liverpool was occupied by patients, the results for the first year or two were not as good in the fine airy pavilion wards, in which each man had 2,000 cubic feet of air space, as they had been in the old crowded building which had been previously occupied. Erysipelas and other hospital diseases appeared; and not until the thousands of gallons of water, which the new bricks and mortar contained, were removed by the slow process of evaporation, did the building become a healthy one.

The second object in hospital management is the removal of all dust which has settled or lodged, and that this shall be a real removal, and not a mere scattering of it from one place to allow it to settle elsewhere. If, for instance, dust is removed with a damp cloth, this damp cloth becomes a dangerous thing in itself. If the external air be cold, we may have a precipitation of moisture on the glass of the windows, and in this moisture will be a considerable proportion of organic matter, so much that if it be collected the fluid will give decided signs of putrefaction.

Now this precipitation of moisture and organic matter is temporarily a purifying process; but if the windows be allowed to dry of themselves, we have, then, a store of dangerous dust, on and at the bottom of the panes, which must be taken care of. I might go on in like manner with many other details, but I have said enough to show what is required.

I came back more thoroughly impressed and convinced than ever, that the thing of prime importance in a hospital, is minute care of, and cleanliness in, every part and person about it, and in the management which will insure this; while without it the most perfect structure that can be devised, soon deteriorates, and gives only second or third rate results. It was very interesting to observe how, in some of the older hospitals, such as the Rotunda in Dublin, Guy's and St. Bartholomew's in London, the City Hospitals in Bonn, in Leipzig, and in part of the Charité in Berlin, the defects of construction and plan were compensated by the mode of management; while, on the other hand, in hospitals admitted to be much superior in plan, such as the Lariboisière, St. Thomas's, and the Herbert, in which it had been apparently supposed that they were so perfect that it did not matter how they were managed, the results are by no means so satisfactory.

The third point in ward management is ventilation; and with regard to this, I am sorry to say that I was able to obtain but little positive information as to the relative economy of the various methods—which is, after all, the main question in dispute.

There, as here, opinions for which no precise data could be given, were abundant; but when I asked how much fresh air is introduced into this ward in an hour? how well it is distributed? and how much does it cost? it was only in two or three hospitals that I could get any definite answers.

The data obtained from English hospitals are of little use to us in this country, owing to the marked difference in climate. Even in England, large wards are not, as a rule, sufficiently heated to make the patients comfortable; and I found that various methods were being tried to supplement the open fire-places, which are not satisfactory, and yet whose efficacy it is considered almost criminal to doubt. Open windows, and various valves and contrivances to throw the incoming cold air upwards are employed; and of these, if open fire-places are to be the sole means of heat and ventilation, and the incoming air is not to be warmed, I think that what are called Tobin's tubes are the best. A modification of this principle is used in the new wards in the London Hospital, in which the fresh air is taken in through slits in the window sills, and this mode is also employed in the new New York Hospital, but the air is warmed before admission.

In the latest and best of the German hospitals, the principle has been adopted of making the heating and ventilation of each building independent of every other. The results, as I observed them, were good, but the arrangements are complicated and expensive, and require careful superintendence. The principal authorities whom I consulted, prefer systems of aspiration to those of impulsion, but are of the opinion that although it may be theoretically possible to effect ventilation of an extensive and scattered series of building by means of one great aspirating chimney, yet that the practical difficulties in the way of adjustment of ducts and apertures to secure in all parts the flow of air desired, will be so great, that it will not be prudent to attempt it.

There is a general feeling of timidity about attempting to use large and powerful but complex systems, which is due to sad experience of failures of such, and hence the recommendation to heat and ventilate each building by itself, or, in other words, to give up the problem of concentration and simplification of the apparatus as unsolvable.

I found the fan or impulsion system in use with good results in the Grand Opera House in Vienna, with medium results in the Chamber of Deputies at Versailles, and with poor result in the Gynæcological Hospital at Bonn, and in the "Lariboisière" and "Necker" in Paris.

Where it was a failure, it was easy to see that the

ducts and fans were improperly arranged and were insufficient in size.

It is my opinion that those who condemn the fan do so for want of experience with fans and ducts of the proper size, and that the results that have been obtained with it in some of the large hospitals for the insane in the United States, and in the "Barnes Hospital" at Washington, are such as to warrant the statement that during the warmer half of the year it is the better and cheaper mode of ventilation.

I have not time here to go into these questions, which indeed are of interest to architects and engineers rather than to physicians, and will only say that what is required is, that at least one cubic foot of air per second, per bed, shall be introduced, thoroughly distributed, and removed in each common ward and payward; that in the isolating rooms, the capacity should be for double this amount; that this must be done without producing drafts or currents that will be so perceptible as to cause discomfort; and that it must be done in still warm days as well as in cold windy ones.

Now bearing in mind what I have said to you about the dangers of organic dust, I prefer that this dust should be drawn down rather than up, and if it is to travel along flues to any distance I should have them so constructed that they can be cleansed by fire occasionally.

If the openings of the foul-air ducts are near the ceiling only, a thorough distribution of the fresh incoming air is made very difficult, and indeed requires that the fresh air registers should be scattered over the whole floor. In a theoretically perfect ventilation, the whole mass of air in the room should move either directly upwards or downwards at the rate of not less than one inch per second, but this is out of the question in most cases, since it would require over eight cubic feet per second, per man, if we allow 100 square feet to each bed.

If the direction that the nurse should "never be satisfied unless she can feel the air gently moving over her face when she is still," were to be carried out, it would require about 50 cubic feet per second, per man; or if the upward movement were to be maintained, it would require nearly 200 cubic feet per second per bed.

Now supposing that the three objects to which I have referred have been well carried out, it is probable that the danger of hospitalism would be greatly diminished, because we should have gotten rid of most of these specific germs. Even this danger would not be entirely removed, however, and we should still have abundance of the causes of ordinary putrefaction in the ward. We cannot therefore afford to neglect the means of preventing these causes from gaining access to wounds, and the means proposed by Mr. Lister should be used until a better one is given.

It is a great error to suppose that the antiseptic method can take the place of good hospitals and good management; this ought to be done, and the others not left undone.

American Microscopical Society.—At the Annual Meeting of the American Microscopical Society of the City of New York, the following officers were elected for the ensuing year: *President*, John B. Rich, M. D.; *Vice President*, Wm. H. Atkinson, M.D.; *Secretary*, O. G. Mason; *Treasurer*, T. d'Orémieulx; *Curator*, John Frey.

AN INTERESTING CASE OF STRANGULATED BUBONOCELE. HERNIOTOMY.

RUPTURE OF THE INTESTINE DURING REDUCTION—CLOSURE OF WOUND WITH LEMBERT'S SUTURE—RECOVERY.

By JAMES L. LITTLE, M.D.,

OF NEW YORK;

PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF VERMONT AT BURLINGTON, VT.; ATTENDING SURGEON TO ST. LUKE'S AND ST. VINCENT'S HOSPITALS, N. Y., ETC.

While delivering the annual course of Lectures on Surgery, at the Medical Department of the Vermont University, in June, 1875, I was called in consultation by Dr. H. H. Langdon, of Burlington, in the following interesting case of strangulated hernia.

Edward Walsh, aged forty. Native of Ireland; laborer; of intemperate habits. He stated that he had had a rupture on the right side for about six years. He had always been able to reduce it with ease, and had never worn a truss. On May 25th, it became strangulated while at Westport, N. Y. A physician was called, who reduced it. He came over to Burlington, Vt., and, May 28th, sent for Dr. Langdon, who found him suffering from a strangulated inguinal hernia. The tumor was situated over the external ring and had not descended into the scrotum.

The doctor, after some manipulation, apparently reduced the hernia. The symptoms—vomiting, severe pain in region of the umbilicus, and constipation—still persisted. Cathartics and enemata were administered, but no action of the bowels was obtained. On June 2d, five days after the apparent reduction of the hernia, I was called in consultation. I found the patient suffering from constant hiccough and vomiting; abdomen distended, tympanitic, and tender on pressure, the tenderness more marked in the right inguinal region; the pulse was small and rapid. No tumor could be seen or felt in the place where the hernia had existed. A more careful examination, however, discovered an indistinct hardness over the situation of the right internal abdominal ring. This could be determined only by extending the thighs so as to put the parts on the stretch, and placing one hand over the situation of the right internal ring, and the other over the left, and rubbing the integuments over the subjacent parts with both hands at the same time. In this way a deeply-seated swelling, like an enlarged gland, could be indistinctly felt. This, I suspected, was a portion of the contents of the hernial sac remaining unreduced and strangulated in the inguinal canal. I at once advised that an explorative operation be performed. About two hours later the patient was examined, at my request, by Dr. Wm. Darling, of New York, Dr. A. F. A. King, of Washington, and Dr. Walter Carpenter, of Vermont, professors in the medical department of the University. On the first examination they were unable to appreciate the existence of any tumor or swelling, but by examining both sides at the same time, as described above, they were able to detect a deeply-seated swelling over the right internal ring. They agreed with me in advising an explorative operation. To this the patient consented.

Operation.—Present, Professors Darling, King, and Grinnell, and a number of the students of the University. The patient was etherized by Dr. Langdon. The pelvis was slightly elevated and the thigh extended. An incision about two and a half inches long was then made just above and parallel with Poupart's ligament, and over the internal abdominal ring.

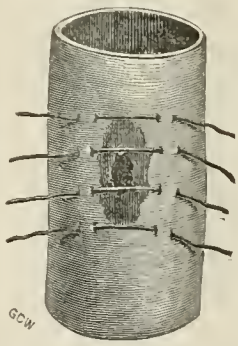
The various layers were carefully divided until the fibres of the internal oblique muscle were reached. On examination with the finger, at this stage of the operation, no tumor could be detected, and it was suggested by those present that the internal oblique be not divided. Thinking it better, however, I cut through the fibres of this muscle, and at once a tumor, the size of a small hen's egg, made its appearance. The transversalis fascia and the peritoneum were then divided, and a knuckle of the small intestine came into view. It was of a very dark color, but the odor was not unpleasant. The fluid in the sac was also discolored. On further examination the seat of the stricture was found to be the internal abdominal ring. With some difficulty I succeeded in passing my finger through the ring, and with the hernia knife divided the constriction. The intestine was now pulled out so that the part engaged in the stricture could be examined. The dark color of the gut slowly disappeared, except in two or three spots situated on that portion of the intestine which had been engaged in the ring. A considerable quantity of serum made its escape from the abdominal cavity through the wound.

On attempting to reduce the intestine, one of these dark spots, which was evidently gangrenous, ruptured, and a stream of the liquid contents of the intestines, the size of a knitting-needle, spurted out over the gut and surrounding parts.

This small opening was at once seized with a pair of artery forceps, but the portion included in the teeth of the forceps came away, enlarging the opening to the size of a No. 3 bougie. A second attempt, taking up a larger portion with the forceps was more successful, and arrested the escape of the contents of the intestine.

Fig. 2.

Fig. 1.



The moment the rupture took place, I immediately put a towel around the protruding gut and over the wound to prevent the intestinal matter getting into the abdominal cavity.

The flow of serum from the peritoneal cavity also contributed toward preventing this accident.

The wound in the intestine was then closed with Lembert's suture. With a lady's sewing-needle and fine silk, three sutures were applied. These, however, were placed too near the opening, and as soon as an attempt was made to reduce the gut they gave way, and again the intestine and parts around were covered with the contents of the alimentary canal.

Four new sutures were then introduced outside of the others, so as to include and curl in the entire dark spot, the first sutures remaining. After the sutures were tied, a deep indentation, about one inch in length, parallel with the gut, was the result. The intestine and surrounding parts were then carefully cleaned with warm water. A disinfectant was not on hand and could not be obtained in time.

My hands were also thoroughly cleansed, except from the disagreeable odor, before attempting the reduction of the intestine. This was accomplished without difficulty.

The wound was then closed with interrupted sutures, and a compress and spica bandage applied.

Ordered gr. i. of opium every two hours after the patient had fully recovered from the effects of the ether.

June 3.—Dr. Langdon reports that patient has had *four free movements from the bowels during the night.* No vomiting, the abdomen soft, and in every respect patient much better.

June 5.—Opium continued at intervals of three or four hours. He had a free movement of the bowels during the day. Hiccough has ceased. Tympanitis almost entirely disappeared.

The wound was examined on the fourth day, and a stitch or two removed to permit the escape of a slight accumulation of pus. The wound was then dressed with a compress, wet with a weak solution of carbolic acid. Milk and beef tea were administered the first few days after the operation.

The patient was able to present himself at my clinique, at the College, two weeks after operation, with the external wound almost healed.

The discharges from his bowels were carefully examined during the time that the patient was under treatment, but no traces of the sutures were found.

The form of the suture used in closing the wound of the intestine is represented in the accompanying woodcut (Fig. 1). Fine silk and a lady's small sewing-needle should be used; this needle doing less injury to the tissues, and causing less hemorrhage than the ordinary surgical needle. The mucous membrane should not be included in this suture. When the sutures are tied, the lips of the wound are inverted and the serous surfaces of the intestine are brought in contact, as represented in Fig. 2, and readily unite. The sutures find their way into the intestinal canal and are expelled with the faeces.

The value of this suture for wounds of the intestine can be readily demonstrated. A wound an inch in length, made in a piece of intestine can be closed with four of these sutures so tightly, that no air will escape, even if the gut be fully distended.

Progress of Medical Science.

Carbolated Camphor and its Use as a Surgical Dressing.—Dr. Soulez, of Romorantin, recommends this substance very highly. He prepares it by mixing 1 gramme of carbolic acid (solution of 9 grm. acid to 1 grm. alcohol) with 2½ grm. of powdered camphor. The product is an oleaginous pale-yellow liquid, with a feeble odor of camphor, and no odor of carbolic acid at all. It does not mix with water or glycerine, but does mix with olive and almond oils. The infusion of saponaria (100 grm. of the leaves of soapwort to 1,000 grm. water) emulsifies it, as does also the alcoholic tincture of *quillaria saponaria* (alcohol at 90°, 1 litre; Panama bark, 250 grm.). When mixed with an equal part of the carbolated camphor, this tincture produces a mother emulsion, which, when weakened with water, is used to prepare the antiseptic wadding.

In dressing a wound, Dr. Soulez covers it first with

a square of wadding, which is impregnated with a mixture of carbolated camphor and olive-oil. This must be large enough to extend 2½ to 3 inches beyond the wound. This is then covered by six other layers of wadding, impregnated with the emulsion above mentioned. Each layer should be one inch wider than the one below it. A thin envelope of caoutchouc is then applied to prevent evaporation, and over this a layer of dry wadding, and the whole is then secured by a bandage. The author claims that this dressing is very easy of application; all the materials can be prepared beforehand, and kept in well-covered jars. Before applying it the wound should always be washed with the emulsion of carbolated camphor. The dressing possesses all the advantages and none of the inconveniences of Lister's method. When applied to a stump, for instance, it keeps it enveloped in a warm atmosphere saturated with vapor of water, which lessens the exciting effects of the oxygen of the air, and is protected by the numerous layers of soft wadding, which keep out all infecting germs. Dr. Soulez renews the dressing usually every six days, but sometimes leaves it on for ten days. So far he has never known the carbolated camphor to cause the least irritation of the skin or the wound. When the caoutchouc is removed, all the layers of wadding are found to be as moist as when first applied. He claims to have obtained the following advantages from the use of his dressing:

1. Lessening of the reaction after major operations.

2. Cessation or diminution of the pain.

3. Diminution of the suppuration. — *La Tribune Médicale*, Dec. 24, 1876

Experimental Investigations of the Functions of the Brain.—Prof. Nothnagel, of Jena, reports the following as the results of his efforts to discover the functions of the cerebellum:

1. The cerebellum presides over muscular co-ordination; its function is therefore to a certain extent of a motor character. This influence on coördination can be demonstrated both by irritating and by destroying the organ.

2. It is exceedingly probable that there is a very intimate functional, and consequently also anatomical, connection between the two halves of the cerebellum.

3. The complete destruction of parts of the cerebellum, the irritation of which produces decided but temporary motor effects, causes no manifest "loss of coördinating power" (Goltz).

4. The destruction of one hemisphere or of both hemispheres alone, or of the anterior and upper part of the vermiform process alone, produced no disturbances of coördination. On the other hand, mechanical irritation of these parts excited motor manifestations of irritation.

5. The well-known disturbances of coördination are excited only by an injury which affects at the same time the deeper parts of both hemispheres and the vermiform process.

Prof. Nothnagel thinks that Schiff's assertion that nothing at all is known of the functions of the cerebellum is not tenable. The above statements demonstrate that the mass of the organ, in its entirety, has some connection with the power of coördinate movement.—*Allg. Med. Cent. Zeit.*, December 20, 1876.

Secondary Hemorrhage after the Use of Esmarch's Bandage.—Prof. Esmarch thinks that the severe secondary hemorrhages after amputations, and the frequent hemorrhages after other operations in which his bandage is used are attributable, in many cases, to the use of too firm a constriction. The rubber tubes usually employed are too thick and hard, and too much force is exerted in applying them. The necessary consequence is a complete paralysis of the vasa-motor nerves, and hence obstinate hemorrhage after the removal of the tube. For some time past Prof. Esmarch has only used the tube in operations at the shoulder and hip-joint, and has found that he can obtain quite sufficient constriction in other operations by means of the elastic bandage alone.

Another cause of these secondary hemorrhages is the imperfect means employed to check the bleeding after operations. In operations for necrosis, Prof. Esmarch, before loosening the constricting band, fills the cavity in the bone, which he always makes trough-shaped, with charpie that has been soaked for a long time in carbolic acid, and applies Lister's antiseptic dressing. If the dressing is well applied, not a single drop of blood will ooze through it after the tube is removed. The charpie is left *in situ* for several days. In resections the tube is loosened before the wound is dressed, and all spirting arteries are tied. In amputations Prof. Esmarch lays great stress on the importance of a circular cut through the muscles, so as to avoid cutting the arteries obliquely. When the limb is removed he seizes the gaping vessels one after another with bull-dog forceps, which he leaves hanging to the stump until he has secured every vessel that he can see, and he then ties them with catgut ligatures. He applies the ligature to both arteries and veins, and believes that when the veins are ligated the danger of secondary hemorrhage is greatly diminished. The rubber tube or constricting bandage is then removed as rapidly as possible; if it be gradually loosened the hemorrhage will be great, because the blood will be pumped into the arteries, but will be unable to flow back through the still constricted veins. He then takes an irrigator filled with a weak solution of carbolic acid, iced, and douches the surface of the wound. The smaller vessels that still bleed are in this way easily seen, and seized with forceps, which are left hanging to the stump. When no more bleeding vessels can be seen, he proceeds to secure those that have been found with catgut. If the operator wait to tie each vessel as he seizes it, much time and much blood will be unnecessarily lost. Prof. Esmarch always has from thirty to forty pairs of forceps on his operating table, and all of them are sometimes in use before he begins to apply the ligatures.

Finally the iced douche is kept up until the capillary hemorrhage ceases, and the stump may then be dressed without fear. For several years none of his amputations or other capital operations have been followed by secondary hemorrhage.

Regeneration of the Pneumogastric Nerves.—At the meeting of the *Société de Biologie* in Paris, on December 9, 1876, a paper by M. Philipeaux was read, in which the results of some experiments, undertaken to prove that complete re-establishment of the tissue and functions of a nerve may take place after its division, were detailed. He found that sixty days were required for the re-establishment of the functions of the pneumogastric nerve in the dog, and eighty days for that of the guinea-pig. In some white mice he found that the re-establishment of function was nearly completed in thirty days. On examining the divided nerves in these animals at the end of thirty days, he found the union complete; only a few of the primitive tubes still presented traces of alteration, or were in process of regeneration. There were still slight enlargements at the extremities of the divided

ends, the enlargement of the cerebral end being more voluminous than that of the peripheral end.—*Gazette Médicale de Paris*, Dec. 30, 1876.

Changes in the Form of the Head of the Child during Labor.—The elongated, pear-shaped form of the head, when the vertex has presented, and the flattening from above downwards after presentations of the face, have long ago been noticed. These changes in shape are characteristic and independent of any contraction of the pelvis. At the end of twenty-four or forty-eight hours after birth, the head has reassumed its normal rounded shape. M. Budin has made numerous mensurations and drawings during the first eight days after delivery, and he shows that the peculiar anatomical conditions favor these changes of form. In the first place, he has found that the occipito-mental is not the longest diameter of the head, the longest being the diameter extending from the chin to a variable point between the occipital prominence and the anterior fontanelle. On the first or second day after birth, the occipito-mental, occipito-frontal, and suboccipito-bregmatic diameters have all increased in length by one-fifth of an inch, and as the head at this time has resumed its normal form, it is rational to conclude that these diameters were shortened during labor. The maximum diameter, on the contrary, diminishes in length during the first and second days of life; hence it must have lengthened during labor.

In examining the cranium of a still-born child, if the two parietal bones be removed, the entire occipital portion of the occipital bone will be found to be very movable, and its superior angle can be pressed forwards; a sort of hinge, composed of fibrous and cartilaginous tissue, exists between the occipital and basilar portions of the bone. During labor the superior angle of the occipital bone is pushed forwards under the parietal bones, and hence the occipito-mental and occipito-frontal diameters are shortened. The superior border of the frontal is thin and supple, and is also depressed, and hence the suboccipito-bregmatic diameter is shortened. The parietal bones are compressed from before backwards, and their sagittal border becomes more convex, and hence the maximum diameter is elongated.

The phenomena are different when the face presents. The superior angle of the occipital-bone is pushed backwards, and consequently the occipito-mental and occipito-frontal diameters are increased. The head reassumes its normal form, and the diameters diminish after birth. Consequently the same anatomical arrangement explains entirely different deformations.

After the head has regained its normal form, it begins to increase in all its diameters, provided the child be healthy.—*Lyon Médical*, Dec. 24, 1876.

Locomotor Ataxia of Syphilitic Origin.—The fact that locomotor ataxia sometimes attacks persons with a syphilitic history has been noticed by many authors, but hitherto this concurrence has attracted but little attention. In a series of lessons which have been recently published, M. Alfred Fournier, however, maintains that there is a relation of causality between syphilis and *tabes dorsalis*. In thirty cases of ataxia that came under his observation, he obtained histories of antecedent syphilis in twenty-four. M. Féréol found that five out of his eleven cases of ataxia had previously suffered from syphilis, and M. Siredy in ten cases of ataxia found syphilis eight times. These statistics are of course too few in number to allow us to base any certain conclusions on them, and even M. Fournier would hardly maintain that the proportion of cases of ataxia, which are of syphilitic origin, is as high as the above figures would make it. Still it would be irrational to suppose that chance alone could explain so frequent a coincidence. It is necessary to admit a more or less intimate connection of the two morbid conditions, a dependence of one on the other. The influence of syphilis on the development of ataxia would seem to be similar to that of rheumatism on endocarditis, or of blennorrhagia on blennorrhagic rheumatism.

Several objections have been raised as to M. Fournier's theory. One of them is that the supposed syphilitic ataxia presents no special symptoms, and another that it presents no special lesions. M. Fournier answers the first by pointing to the fact that syphilitic paraplegia, syphilitic cirrhosis, etc., present no special symptoms, and still their specific origin is questioned by none; and the second by the statements that many common lesions are attributed by all authorities to syphilis, and that, moreover, the sclerosis of the posterior cords, which characterizes ataxia, is very similar in nature to the usual lesions of tertiary syphilis. In six of his cases, M. Fournier obtained great benefit from the use of anti-syphilitic treatment. Of course, in advanced cases, in which the disorganization of the posterior columns of the cord is almost complete, no treatment will be able to reconstruct the destroyed nervous elements.

The symptoms and course of syphilitic ataxia are similar to those of the ordinary form. At the most, in the former, the cephalic symptoms are less frequently the initial phenomena of the affection. Incomplete cases are met with in both forms. M. Fournier distinguishes three types of the affection, viz., the lumbar or spinal, the cephalic, and the ocular (tabetic amaurosis). It is an interesting fact that the syphilitic ataxia is rather often accompanied by other specific affections of the nervous system, such as hemiplegia or paraplegia. M. Fournier terminates his brochure with the following conclusions:

1. In every case of ataxia it is the duty of the physician to examine carefully for traces or the history of syphilis.

2. If an antecedent syphilis have existed, or be even suspected, the primary indication is to prescribe the treatment of that diathesis. Experience teaches that this treatment has several times produced excellent results, and the plain duty of the physician is to give the patient the benefit of the chance.—*Gazette Médicale de Paris*, Dec. 30, 1876.

Partial Aphasia without Appreciable Lesions of the Island of Reil.—Professor Wood, of Philadelphia, reports a case that is interesting in view of two points: one, that there was no choked disk in local and general meningitis, and the other, the presence of aphasia without any apparent alteration of the island of Reil. The absence of choked disk does not, in Dr. Wood's experience, indicate the non-existence of cerebral growths, or even of meningitis. Nor does the condition of the island of Reil disprove the theory of speech localization, for though the macroscopic and microscopic characters of the part did not show any decided change, the meninges over it were thickened, and as they supply it in part with vessels, there may have been an impediment to the circulation sufficient to constitute a functional disturbance, while the actual structure was not sufficiently altered to be determined by the present methods of examination.—*Am. Journ. of the Med. Sci.*, Jan., 1877.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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PUERPERAL FEVER IN CHARITY HOSPITAL.

It is unfortunate to find that puerperal fever has again appeared and been the cause of several deaths in Charity Hospital during the month of January. What calls for grave censure is that the obstetric service has been conducted in the general hospital, where nearly every form of disease finds a home, with the exception of eruptive fevers. It might have been expected when the transference of parturient and pregnant women took place from Bellevue Hospital, in the summer of 1874, that eventually something had been learned in regard to the proper treatment of obstetric cases, particularly when, in the following year, during the discussion at the County Medical Society of the genesis of the last puerperal epidemic at Bellevue, the error of continuing the service in the wards of a general hospital was fully indicated. Aside from this, the results obtained in stamping out the disease after the patients had been conveyed to Blackwell's Island were amply sufficient to gratify all who take an interest in the prophylaxis of puerperal disease.

Regardless, however, of the experience of the past, and of the admonitions of those who spoke knowingly on the subject, the old routine has been resumed, with a result corresponding to what might have been anticipated.

If there is one thing at present settled in regard to the treatment of these cases, it is that delivery should take place in structures of such a character as can be readily destroyed when any epidemic appeared, and that these structures can be completely isolated, not only from all surgical cases, but even from medical cases, for professional experience has not yet decided how far acute medical disease may act as a factor in generating some of the forms of puerperal fever.

These precautions were not taken at Charity Hospital, and, whilst it is our duty as an exponent of the profession to draw attention to the neglect, we are not in a position to say whether the responsibility rests with the Medical Board, in not advising the proper procedures, or with the Department of Public Charities and Correction, in not carrying out such advice, if it were given.

THE HEALTH BILL FOR THE STATE OF NEW YORK.

The new Health bill now before the Legislature is one which deserves the active support of the profession throughout the State. It embodies the suggestions of the standing committee on Hygiene of the New York State Medical Society in conjunction with the most effectual practical measures of other States which have such boards.

DRUGGISTS' WEIGHTS.

Senator Wagstaff has recently introduced into the Senate a bill for the purpose of regulating the weights and balances used in compounding and dispensing drugs and medicines in the city of New York. The bill provides that druggists shall employ proper balances and weights, and indicates the limit of inaccuracy that will be permitted. They shall also be provided with a set of Metric weights. Troy and Metric shall be the only weights used in compounding and dispensing medicines. This is rendered necessary by the fact that in probably ten per cent. of the drug stores in this city there are no Troy weights. The bill also provides for an inspector to carry out the law. Inaccurate weights will be confiscated, and their owners fined ten dollars. There will be no charge for the inspections where everything is found right. It is to be hoped that this bill will pass, as the present scandalous condition of affairs should be speedily remedied.

SANITARY INSPECTION OF SCHOOLS.

Since we took occasion to refer to the bill of Senator Gerard for the creation of the office of Sanitary Inspector of Schools, we have learned that the Board of Education of this city have seen fit to oppose the measure. We confess that this action is somewhat astonishing. The following is the remarkable resolution passed at a recent meeting:

"*Whereas*, It is reported in the public journals of this date that Senator James W. Gerard has introduced a bill in the Senate of this State to provide for the sanitary inspection and supervision of the public schools in this city by creating an additional and useless office, to be filled by the Board of Education for that purpose; therefore,

"*Resolved*, That this Board respectfully protests against the passage of any such law as unnecessary and uncalled for by the public interests or welfare of the public schools of this city."

It is difficult, in the face of the overwhelming proof

in favor of sanitary inspection of our public schools, to speak with calmness of the impudence and stupidity which prompted this objection. Senator Gerard, in expressing his surprise at the passage of the resolution, very significantly says that he would have been much better satisfied with the reasons of the Board than a simple protest.

It will be a matter of great curiosity with the medical profession of this city, and with all sanitarians, to know what these reasons may be. We almost expect to hear that the schools are not overcrowded, that the ventilation is perfect enough for all practical purposes, that the danger of propagating infectious diseases is a myth, that cellar class-rooms are healthy—in fact, that no other persons are privileged to have any opinions upon these questions save the oracles of the Board. Indeed, we have good reason for supposing that such an anticipation of their line of argument has some foundation in actual fact. The school inspectors of the Fifth District have saved us from some of the possible flights of imagination by a few curiously significant statements. These are so confidently made that it would be an insult to common sense if we doubted the authority upon which they are based. These inspectors are now able to declare that they have "no doubt that the health of the children is promoted by their attendance, study, and discipline in our public schools," and consequently we presume "it is unnecessary that a physician should be appointed to look after the health of the children while attending schools." Further, in view of the foregoing facts, they "are of the opinion that the children when ill should be visited by physicians at their homes." If we have not done full justice to these gentlemen in presenting their argument in this shape, it is not from any lack of desire to strain a point in their favor. In fact, we dignify their report by a notice, for the reason that it is the best explanation which they have given in the minutes of the Board for the passage of what might otherwise be considered a very stupid resolution.

To be as serious, however, as the circumstances of this ludicrous action on the part of the Board will allow us, we ask if it is not time that a fitting rebuke should be administered. It strikes us that the only reasonable way to explain the course taken is an impudent defiance of public and professional opinion. Senator Gerard is just now in a position of great responsibility, but he can rest assured that his advocacy of the bill will be sustained by popular and professional sentiment not only in the city, but throughout the State. We believe him equal to the occasion, and hope for the best.

Metric System.—The Syracuse Medical Association, at a late meeting, resolved to recommend to its members the use of the metric system in prescriptions, and in all communications in which reference is made to weights and measures. Some of the druggists have already taken measures to supply themselves with metric weights.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 15, 1877.

Dr. S. S. Purple, President, in the Chair.

THE RELATIONS BETWEEN PSEUDO-MEMBRANOUS CROUP AND DIPHTHERIA, AND THE VALUE OF TRACHEOTOMY IN EACH.

Dr. John C. Peters opened the discussion by giving a brief outline of the history of diphtheria in the United States. In the history of New England, by J. Joslyn, Gentleman, in the years 1638 and 1663, the malady was referred to under the general description, "fearful disease in the throat, which proved fatal in a short time."

In a history of New England, prepared by Morse and Parish in 1804, reference was made to a most extensive epidemic of "throat distemper" which occurred in the year 1735. Dr. Douglas's paper of 1735 was also attached to Caspar Morris's paper upon scarlatina. Bard described diphtheria in 1771.

In Vermont, from the year 1773 to 1777, it was known by the name, "malignant sore-throat;" in 1778 it was described as cynanche trachealis, or croup; in 1793 as malignant sore-throat; in 1795 as "anginal epidemic;" and in 1796 as ulcerous sore-throat.

In the latter year it was said that some cases exhibited a rash having a crimson appearance; in others there was no eruption; probably there was a mixture of scarlet fever and true diphtheria. In 1802 and 1803 it again appeared in Vermont, and was called the "throat distemper:" in 1810 it was referred to as "cynanche trachealis and rattles;" in 1810 and 1811 it was also described as it appeared mixed with a typhoid epidemic.

The number of deaths from croup and diphtheria reported in New York from 1856 to 1877, were as follows:

Year.	Deaths from Croup.	Deaths from Diphtheria.
1856	550	None.
1857	560	2
1858	478	5
1859	622	53
1860	599	422
1861	460	453
1862	685	504
1863	908	981
1864	754	734
1865	449	589
1866	257	334
1867	76	38
1868	342	277
1869	255	158
1870	421	308
1871	457	238
1872	675	446
1873	732	1,151
1874	594	1,665
1875	758	2,311
1876	527	1,750

In 1814, at Aquia Creek, Va., there appeared an exceedingly severe distemper, which carried off entire families, and which was described as a violent sore-throat, attended with obstruction of the air through the windpipe.

The first case reported in the city of New York was by Dr. Willard Parker, at the New York Pathological Society, June 11, 1845. The specimen was accompanied by the remark that "the disease had prevailed extensively in the city."

On the 28th of January, 1846, Dr. John C. Peters presented before the same Society a specimen of "diphtheritic croup." Drs. Markoe and Sabine also reported cases within those years. From that time, 1846, the disease was comparatively lost sight of, until a case was reported by Dr. A. Jacobi.

In the City Inspector's report for 1860, death had been attributed to diphtheria in 422 cases; but it was said that no case had been recorded at the office prior to 1857. It was also stated by the City Inspector that, in his opinion, it was not contagious, and was curable in a large majority of cases.

The first mention of pseudo-membranous croup was of comparatively recent date, being made by Dr. Blair, of England, July 6, 1713, under the name "croops," which he described to be "a snorting at the nose, and a squeaking at the throat."

In 1755, Dr. Russell, of London, gave the distinguishing features between diphtheria and true membranous croup. Dr. Peters made further reference to the literature of croup and diphtheria, and the discussion was continued by

Dr. Joel Foster, who regarded membranous croup and diphtheria as two distinct diseases.

Dr. Elisha Harris regarded diphtheria as a self-propagating disease, and that when its infectious attribute had become fixed in any locality it showed a tendency to persist, especially in the midst of ordinary civic conditions. It could not be expected, therefore, that diphtheria, although upon the decrease, would entirely disappear, even in the present year.

Dr. Rudolph Tauszky took the ground that the two diseases were essentially distinct, and that their duality could be easily demonstrated microscopically, macroscopically, and clinically.

The following characteristics of the membranous deposit in the two diseases were given, accompanied by drawings of the histological appearances:

The exudation in membranous croup consisted of fibrillæ, horizontally arranged and nearly parallel with each other, with slight interstices, which contain epithelia, mucous corpuscles with nuclei, mucous threads, a number of indifferent elements, and a few fat globules. The membranes examined were removed from the epithelial layers of the mucous membranes of the air-passages of children suffering from croup; the membrane could be removed easily and without doing the least violence to the tissues beneath. The fibrillæ were the result of coagulated albuminates and changed epithelial formations.

The membranous exudation in diphtheria showed a distinct homogeneous framework, circularly arranged, forming nests filled with numberless joint and a few rod-like organisms, having all the characteristics of the so-called micrococci (not at all found in the exudation of croup), and which could not be made to disappear by the addition of glycerine, acetic acid, or sulphuric ether. The circular network was interwoven and infiltrated into the substance of the submucous connective tissue, from which it could not be detached without violence, and if removed left behind a bleeding surface.

The exudation of croup was colorless and of the consistence of fibrin, and could be partially dissolved by the aid of warmth, or the addition of acetic or hydrochloric acid. The structure of the exudation in diphtheria was looser, more easily separable after removal from the body, and, like a substance containing albuminous matter undergoing decomposition, was turbid.

Dr. Tauszky maintained that in diphtheria micrococci might be found in all the organs of the body, having first entered from the atmosphere the local putrefactive process in the throat, and from there gained entrance to the system by means of the lymphatics. In that manner an additional poisonous element was added, hence the necessity for local disinfectant treatment, the object being to arrest the process of putrefaction, and destroy the animal organism. Dr. Tauszky gave an interesting account of the difference between catarrhal, croupous, purulent, and the putrescent or diphtheritic inflammation, and closed his remarks with a brief reference to the clinical features by which the two diseases were to be distinguished.

Dr. George Bayles remarked that the distinctive differences between membranous diphtheria and croupous laryngitis could be demonstrated better by every other symptom and condition than by such as were confined to the mucous surfaces of the respiratory passages.

It was in the localized symptoms that no certain distinction could be formulated to the satisfaction of all pathological observers; that is, *localized* as far as concerns the naso-pharyngeal and tracheal surfaces.

There was a localization in another sense, however, that would help to determine the real and radical differences existing between the two forms of disease, namely, *induced localization* of membranous deposits upon surfaces remote from those specifically affected, or destined to be affected. Upon surfaces artificially prepared to exude *liquor sanguinis*, diphtheritic pseudo-membrane might be looked for in cases of diphtheria, and naught but pure reparative coagulable lymph in cases of membranous croup, even when the laryngeal membrane of croup was at its worst in point of occlusion or mechanical obstruction of the respiratory passages.

To assume that croup had phases of character and degrees of intensity that altered its manifestations in so remarkable a manner without destroying identity, was simply to assume that croup or diphtheria, by whichever name it might be called, did not obey fixed laws of invasion, or of development; neither was it governed by any of the usual influences which obtained under certain and variable conditions, as of age, sex, locality, constitutional tendencies, infection, etc.

If common croup (that fleet evidence of nursery mismanagement) could become assimilated or pathologically associated with diphtheria, it would be because a "cold" had assailed a vitiated and depraved constitution, and had become the exciting cause of a croupous variety of diphtheria, the diphtheritic element being determined by the constitutional conditions previously prevailing. That would seem to be possible when we reflected that we could demonstrate the presence of diphtheria in the system even in the absence of the usual *throat* lesions, and even when from considerate treatment, or other reasons, the throat lesions failed to appear.

If, therefore, we were able to have croup without appreciable constitutional taint, either before or after the attack, and were able to have diphtheria without the laryngeal and faucial false membrane, and further, which would be admitted, if we were *not* able to have croup without the pseudo membrane of the throat, and *not* able to have diphtheria without a constitutional involvement to some extent, however slight, why was it necessary, under any accepted system of patho-

logical reasoning, to regard the two forms of disease as essentially and generically one?

To amalgamate the two diseases would be to multiply the pathological and histological difficulties in the case to an inordinate degree, while to award croup and diphtheria a reasonable and separate identity, and study them accordingly, would doubtless be the right step towards acquiring a better knowledge of their real and independent natures.

Dr. Billington continued the discussion by replying to certain propositions submitted at the last meeting of the Academy, by Dr. J. Lewis Smith, in favor of the view that diphtheria was a specific primarily constitutional disease.

I. The first proposition was that diphtheria resembled such constitutional diseases in having a "long incubative period in certain instances. A week might elapse after exposure before symptoms of diphtheria commenced."

Dr. Billington, in reply, remarked that although the interval between exposure and attack in diphtheria varied from a day or two to longer periods, the same was true of other diseases not recognized as primarily constitutional. It was true of gonorrhœa; but that affection was not therefore a primarily constitutional disease.

II. "Severe constitutional symptoms, lasting for a longer or a shorter period—perhaps for twelve hours—might be present before the appearance of the usual inflammation."

Out of several hundred cases of diphtheria observed by Dr. Billington, he had never seen one so early that some indications of local inflammation had not been evident. Diphtheria, however, as was well known, often appeared in the course of other diseases, both general and local—a fact not in accordance with the usual behavior of specific, primarily constitutional diseases.

The presence of diphtheria was so appalling that there was liability to fail in bringing to its observation that cool analysis of symptoms which was given to less formidable diseases. Dr. Billington believed that when a thorough analysis was brought to bear upon the disease the conclusion must be confirmed that there was no symptom nor set of symptoms peculiar to the onset of diphtheria. The invasion of simple catarrhal sore throat was often attended—sometimes apparently preceded—by rigors, fever, anorexia, nausea, headache, general pains, etc. Many cases of non-diphtheritic throat-affection were attended from the first by marked constitutional depression. Those who had seen much of diphtheria must have met with grave cases of the disease, in an advanced stage of local manifestation, in which the general symptoms were so slight that no serious illness had been suspected.

III. "Early and repeated local treatment of the inflammation did not prevent the occurrence of symptoms of blood-poisoning in all cases of severe type. Local treatment was to be used to prevent septic poisoning, but it did not prevent diphtheritic systemic poisoning."

Dr. Billington replied that there was no known treatment that would at once subdue the inflammation, even in simple sore throat. In diphtheria some days generally elapsed before the exudation could be finally removed. Opportunity was, therefore, always afforded for the absorption of poison. No known treatment that was safe and practicable could be absolutely disinfecting, even in favorable cases—only approximately so. Toxic absorption from the affected surface, in greater or less amount, was therefore inevitable in every case of diphtheria. It was therefore regarded as illogical to consider some of the morbid phenomena of diphtheria as due to this assumed primary systemic poison, and the sepsis only to local absorption.

It had been claimed by some that the sequel, paralysis, because it followed mild cases as well as severe ones, must be due to primary systemic poisoning. On that point Dr. Billington remarked, first, that the conclusion was in no way warranted by the premises; and second, that the features of that paralysis—beginning as it usually did in the velum palati, and being frequently accompanied by evidences of tissue degeneration at that point of commencement, according to recent observations—were at least as suggestive of a local as of a constitutional cause.

Because water often failed to extinguish fire, it did not follow either that it was a valueless agent for extinguishing fire, or that the most destructive conflagration had other than a local origin.

IV. "The state of the kidneys afforded evidence of a constitutional malady. In certain cases of diphtheria the urine was albuminous as soon as any of it could be obtained. This was regarded as a strong point in favor of diphtheria being primarily a constitutional disease, whether the local manifestation was a pharyngitis or a laryngitis, for the poison penetrates the system before it reaches the kidneys."

Albuminuria in severe cases of diphtheria, and in many mild ones, was a familiar fact. The question, however, remained, was that phenomenon the result of a primary systemic or of the locally absorbed poison? If the result of the former, it should exist at that stage of the disease which preceded the occurrence of exudation. It might be said that such was the fact in certain cases. Dr. Billington replied that such instances were the exceptions to the general rule. He believed that albuminuria probably existed in the pre exudative stage of diphtheria in no larger proportion of cases than of simple catarrhal affections of the same degree of severity, and from the same causes. In confirmation of his own observations upon that point, quotation was made from Dr. Robert Bell, of Glasgow, in the *British Medical Journal* of January 29, 1876, as follows: "The presence of albumen in the urine must not be looked upon as a necessary symptom of diphtheria; as it often does not manifest itself until far on in the disease; and, on the other hand, I have often observed albumen as a concomitant of ordinary sore throat."

Dr. Billington said, "I believe that the true interpretation of all the clinical and pathological facts of this disease is that upon the basis of a catarrhal inflammation is developed locally, by some influence—whether tendency from within or irritation from without, whether organic or chemical, no one at present knows—the morbid process which results in the diphtheritic exudation; that from this *fons et origo malorum* are absorbed the specific and septic poisons or poison of the disease, diphtheria; and that to this absorption is due everything that is distinctive in its constitutional phenomena."

It was believed that by accurately separating the constitutional symptoms peculiar to diphtheria from those which were not so, we should find in nearly every case that the time, order, and manner of their appearance were precisely such as to confirm the truth of the above theory. The few exceptional cases of marked disproportion between the constitutional symptoms and the local affection might be readily explained by the fact that diphtheritic exudation might and often did occur in localities where it was not visible; or by another familiar fact, not peculiar to diphtheria, that

in certain constitutional conditions there might be grave toxæmia by absorption from a trivial source.

OBSTETRIC SECTION.

Stated meeting, February 19, 1877.

DR. A. C. POST, CHAIRMAN, PRO TEM.

BELLADONNA AS A PRESERVATIVE AGAINST SCARLET FEVER.

DR. J. C. PETERS reported three cases of scarlet fever occurring in one family, recovery taking place in each. To the fourth child in the same family belladonna was administered for the purpose of protecting him from the disease, but it was contracted notwithstanding, and was the only case in the family in which it proved fatal.

Dr. Peters remarked that his experience in the use of belladonna as a preservative against scarlet fever had been large and unfavorable. In looking up the literature of the subject, he had found that Hahnemann recommended $\frac{1}{2000000}$ of a grain of belladonna, stirred in a glass of beer or milk, as a preservative against the scarlet fever of Sydenham, which Sydenham himself declared would get well of itself, if not disturbed by the officiousness of meddling doctors. Against the scarlatina maligna, however, Hahnemann did not claim it to be preservative, but on the contrary regarded him as foolish who should so regard it.

OBSTINATE VOMITING—OXALATE OF CERIUM.

DR. PETERS reported four cases of obstinate vomiting, associated with different forms of disease, all of which had been benefited in a very striking manner by the use of large doses of oxalate of cerium after an almost endless variety of measures had been unsuccessfully employed.

The first case was one of cancer of the stomach. Oxalate of cerium was administered in doses of four grains every two hours, while the patient was awake, and continued until probably six hundred grains were taken within three weeks, not only without inconvenience, but with such marked benefit that food was taken and retained with comparative comfort.

In the second case the vomiting was associated with vaginismus. The third and fourth were cases of chronic dyspepsia. In the third the patient had been taking large doses of McMunn's elixir of opium and whiskey, but by the use of large doses of oxalate of cerium the vomiting was subdued, and both opium and whiskey were abandoned. The toleration of the drug was somewhat surprising.

VARICOSE VEINS — HEMORRHAGE ARRESTED BY HOT WATER.

DR. S. CARO was called to attend a woman in labor, who was the mother of twelve children and had had three miscarriages. She had never had any trouble in either labor or miscarriage. The doctor was called in haste on account of a sudden loss of a large quantity of blood from the vagina. Upon arrival he found that the fœtal heart was still beating, the labor advanced to the second stage, and the pulse of the woman very feeble. The vertex presented, and in the first position. The doctor was not able to satisfy himself with regard to the source of the hemorrhage until by inspection blood was seen oozing quite freely from a ruptured varicose vein near the outlet of the vagina. A flannel compress was wrung from water as hot as could be borne, and the labiæ being separated, applied immediately in contact with the bleeding spot. The hemorrhage at once ceased. The pains being inefficient, and the uterus failing to respond to the use of stimulants, the child was delivered by forceps, and was alive. After delivery there was a tendency to return of the hemorrhage, but it was easily and completely controlled by the hot water.

Whether the arrest of the hemorrhage was spontaneous, or was produced by the hot water, or by the compress, the doctor was not able to say positively, but it was to be remarked that the flow of blood quickly ceased after the application of compresses dipped in very hot water, both before and after delivery.

Correspondence.

THE CLIMATE OF FLORIDA.

MR. EDITOR:—In an editorial in your February 10th number, on the climate of Nassau, you take occasion to institute a comparison with that of Florida, to the discredit of the latter, basing your remarks probably on hearsay rather than on personal observation. As the subject of the comparative value of climates, especially of those most accessible to our people, is a very important one, and, as you say, growing in importance, and as *facts* are what you, and the writer, and the profession are anxious to gather, will you allow him to offer you a contribution, small though it be, of actual fact, as bearing on one of the statements contained in the editorial referred to, viz.: That "other influences characterize *particularly* (italics not yours) the resorts in Florida, which detract from their character as winter residences. Cold north-easterly winds laden with moisture, and even frost, may surprise the Northern sojourner in most parts of Florida during any of the winter months, and unpleasantly remind one of the lack of home comforts and protection against bad weather"? The impression conveyed in this sentence to the minds of those not conversant with the Florida climate is that a stay here in the winter would be rendered uncomfortable by cold winds, and particularly by north-east winds. Now, the *prevailing* winds of Florida in winter are not N.E. In most winters they are very exceptional. When they do prevail, they are not *cold* winds, nor disagreeable winds, except at some points on the *coast*. Along this river, where people from the North "most do congregate," they are generally pleasant, bracing winds, not necessarily unpleasant even when it is cloudy and rainy. They do not usually bring rain, the rainy winds in winter being the S.E. and S.W. It so happens this winter, however, that a most remarkable succession of N.E. winds *has* prevailed. So we may learn what they have brought us, at this point, from the following table, which presents the average temperature for each day, from thermometrical notes, taken carefully by the writer, at morning, noon, and evening:

Jan.	23	68	Feb.	4	69½
"	24	52	"	5	67
"	25	55	"	6	56½
"	26	62	"	7	59¾
"	27	60	"	8	61
"	28	51½	"	9	51½
"	29	58	"	10	52
"	30	58½	"	11	55¾
"	31	57½	"	12	60
Feb.	1	62¾	"	13	61
"	2	62	"	14	57½
"	3	63½			

It rained, during these *twenty-three* days, on the morning of the 23d, that of the 7th, and that of the 14th: no whole day. Besides these rainy days, it was cloudy during the whole of the 4th and 6th of February, and during a part of the 26th of January, and of the 5th and 13th of February.

The lowest of the temperatures given in the above table were considered "bracing" and "pleasant" by both invalids and tourists here. In the morning and evening it was pleasant to be around the fire-places when in-doors, but at the same time an overcoat was generally not needed, except by invalids, out-of-doors. This is mentioned to show that, even at those comparatively low temperatures, the dampness was not felt to be an inconvenience.

Nassau has its advantages, but the uniform high temperature, especially as it is combined with a comparatively high degree of moisture, is not generally considered as one of them by those who have tried a prolonged residence there in winter. Nothing here is more likely to produce discontent and desire for change than a series of days characterized by a uniform high temperature, although the nights are always cool enough; and the cool changes, which are not infrequent here, are always hailed with satisfaction, and especially by those most seriously afflicted by pulmonary disease. This the writer has always considered one of the advantages of a Florida winter, and would recommend it in preference to one where "even moderate fluctuations of the temperature are rare, and frost is never known." Nor is there any lack of "protection against bad weather," as open fire-places or wood-stoves are sufficiently abundant everywhere, even in the humblest private houses.

The writer did not intend to trespass so far on your valuable space, but no climate has been more misrepresented than this. By some it is lauded as only second to heaven, by others abused as only a little more tolerable than that of a very opposite locality.

Respectfully yours,

F. D. LENTE, M.D.

PALATKA, Feb. 14th.

LIFE INSURANCE AND THE MEDICAL PROFESSION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In your remarks of January 27th, upon "Frauds in Life Insurance," you clearly point out the practical weakness of the present system, in the lack of independence and authority in the medical managers. But permit me to say that, in my view, the cause and the remedy for this evil need a more careful examination.

Why is it that the medical examiner is not recognized by the companies and the public as the chief guardian of the business, the most responsible of all its officers for its success or failure? It is largely because of our defective legislation. If life insurance were conducted without special supervision by the government, and were left to the control of the laws of commerce and society, with such judicial supervision as applies to all other financial trusts, the companies would compete before the public upon the actual results obtained by their management; and the first element of success would necessarily be the scientific selection of risks by skilled examiners. Instead of this, the State has undertaken to superintend the business in its minutest details, and, by a system of examinations and reserves founded on a mathematical theory which is but very remotely connected with commercial facts, it diverts public attention from these facts, and concentrates it wholly on these theoretic fictions. The certificate of the State is given alike to the strongest and weakest companies, to the great mutual societies of New York or Hartford on one hand, and to a Continental or a New Jersey mutual on the other; and puts them all on a dead level, so far as the healthy business competition, which appeals to the intelligence of the community, is concerned.

To be specific: this supervision, according to the law of this and every other State, expressly assumes that all the risks insured in all the companies are precisely of the same value; of that value, namely, which the legalized table of mortality represents, one company may have, in some cases does have, a rate of mortality three times as great as another; and the latter may then be perfectly solvent, in a sound commercial view, though it holds a reserve far below the State standard, while the former is commercially bankrupt, though its invested funds exceed the highest requirements of the law. State supervision, however, cannot legally take any notice of this fact; it must mercilessly destroy the solvent company, and hold up the hollow swindle as worthy of public confidence until the crash comes.

This law makes it an absolute necessity, first of all, for each company to make its apparent reserve good against the State day of reckoning. If, in order to do this, it is necessary to take business at random, to scatter its risks through dram shops and felons' dens, to insure the sick and dying, the necessity is on it, and it cannot hesitate. What can the examining physician do? The eye of the law sees only the cash in hand; it is fixed searchingly on the receipts and investments; it is utterly blind to the selection of risks. He may protest, but there is no power to sustain his protest, and, as far as the State is concerned, he has neither influence nor responsibility. While such laws exist, the medical profession will always be thrown into the background in the management of the business; their position can never assume its proper importance. You are unquestionably correct in holding that the post of medical director is as potent for good or evil in a company as that of "Actuary, General Agent, or President;" but all these officers are under the immediate pressure of the law, recognized by it and compelled to meet its continuous requirements, while the law does not acknowledge the existence or work of the medical man. Of course, if his duties appear at any time to come in conflict with these requirements, they must be overruled.

If any State supervision of companies be proper, it is a State Medical Board to superintend the selection of examiners, and to hold them responsible to faithfulness in their work. But this is unnecessary. If the State would cease to belittle and obscure the medical side of the business—the very source of its vitality—by giving an unfair and exclusive prominence to a merely theoretic view of its financial aspects, we should soon see the companies forced, in self-preservation, and in their competition for good risks, to bring the medical guardianship of their safety into proper respect and control.

Yours respectfully,

SECRETARY.

CHARITY HOSPITAL, N. Y.—The following are the statistics of this hospital for the past year: Patients in hospital, January 1, 1876, 804. Admitted during 1876, 7,817. Cases treated during the year, 8,621.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 18th *to* 24th, 1877.

COOPER, GEO. E., Asst. Medical Purveyor. Relieved from duty in Dept. of California, and to relieve Surgeon R. Murray of the charge of the Medical Purveying Depot in San Francisco, Cal. S. O. 40, A. G. O., Feb. 21, 1877.

GARDNER, W. H., Asst. Surgeon. Assigned to duty at Greenville, S. C. S. O. 36, Dept. of the South, Feb. 17, 1877.

BUCHANAN, W. F., Asst. Surgeon. Assigned to duty at Morganton, N. C. S. O. 38, Dept. of the South, Feb. 20, 1877.

GARDNER, E. F., Asst. Surgeon. To report to Commanding General Dept. of Dakota for assignment to duty. S. O. 41, A. G. O., Feb. 23, 1877.

SHUFELDT, R. W., Asst. Surgeon. To report to Commanding General Dept. of the Platte for assignment to duty. S. O. 41, c. s., A. G. O.

PERLEY, H. O., Asst. Surgeon. To report to Commanding General of Dept. Dakota for duty. S. O. 41, c. s., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending February 22, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Feb. 17.....	0	7	67	3	2	42	0
Feb. 22.....	1	6	82	4	3	45	0

CHARITABLE BEQUESTS.—Miss Mary Danser, of this city, lately deceased, made the following bequests to the charitable and medical institutions of this city: New York Eye and Ear Infirmary, $5,000; Home for Incurables, $20,000; New York Society for Prevention of Cruelty to Children, $10,000; New York Juvenile Asylum, $10,000; North-Eastern Dispensary, $5,000; Sheltering Arms, $10,000; Nursery and Child's Hospital, $5,000; Northern Dispensary, $5,000; Homœopathic Medical College, $5,000; North-Western Dispensary, $5,000; Demilt Dispensary, $5,000; Homœopathic Dispensary, $5,000; New York Society for Relief of Ruptured and Crippled, $20,000; Eastern Dispensary, $5,000.

UNIQUE ABDOMINAL LESION.—Dr. J. L. Coombs, of Grass Valley, Cal., writes: "In relation to the case of a child reported by Dr. John S. Coleman, of Augusta, Ga., in the number of your journal for Feb. 3d inst., 'occasional attacks of *malarial* fever from its birth' is mentioned as a condition existing before the injury. Not being able to suggest the actual 'neuro-pathological' condition, still it occurred to my mind at once that the use of *arsenic* in medicinal doses may have been a factor in the production of the constitutional condition which existed at the time of injury."

UNIVERSITY MEDICAL COLLEGE, N. Y.—The Thirty-sixth Annual Commencement of the Medical Department of the University of the City of New York took place at the Academy of Music, Feb. 20th, in the presence of an unusually large and brilliant assemblage. The auditorium, orchestra, parquet, and balcony were crowded with friends of the institution, fully one-half of whom were ladies. On the stage, which was handsomely decorated with flowers, were seated the members of the Faculty and other distinguished guests. The music was furnished by Grafulla, and comprised selections from Strauss and other popular authors.

The Mott gold medal for the best anatomical preparation was conferred upon Mr. M. M. Johnson, of Connecticut, and the silver prize upon Mr. Alexander Dallas, of New York. Honorable mention for proficiency and superior excellence in this examination was made of the following gentlemen: H. C. Toal, F. A. Gillen, C. A. L. H. Von Ramdohr, M. T. Scott, A. G. Paine, Jay Owens, L. Haupt, G. L. Krieger, F. W. Brown, H. H. Coleman, W. P. Bowen, H. T. Dawson, S. Koen, A. E. Prince, and W. E. Cladek.

The address was delivered by Bishop Quintard. It contained a pleasant reference to the past thirty years' history of the institution and of the noted men who had been connected with it, and was full of sympathy and encouragement for the graduates before him. At the same time he cautioned them against over-confidence, and reminded them that perseverance and constant study were as necessary in the physician as in the student. Theirs was a burdensome profession, often an overtasked and unremunerative one, and patience and courage were, above all things, necessary. The Bishop did not side with those who thought a strictly medical education sufficient for a good physician. A liberal allowance of academical studies, especially Greek and Latin, were essential to a man of thorough cultivation, and certainly would not detract from a physician's usefulness or capacity for improvement. He would especially urge upon them a spirit of manly independence and self-reliance. The address was listened to with marked attention and elicited much applause. During the evening Chancellor Crosby conferred degrees upon one hundred and fifty-seven graduates.

ALUMNI ASSOCIATION OF UNIVERSITY MEDICAL COLLEGE.—The sixth reunion dinner of the alumni of the Medical Department of the University of the City of New York was held at Delmonico's, Friday, February 23, 1877.

A large number of alumni were present, and also the members of the graduating class, with some distinguished representatives of the other professions as invited guests. The dinner was, as usual, a sumptuously elegant one, and was enjoyed accordingly. Prof. Charles Inslee Pardee, the President of the Association, occupied the chair, and very gracefully performed the duties of host. The following were the regular toasts, with their respondents:

"The University of the City of New York," Rev. Howard Crosby, D.D. "Our sister colleges," Prof. T. Gaillard Thomas, M.D., and Prof. Fordyce Barker, M.D. "Our public charities," Hon. Isaac H. Bailey. "Our Alumni Association," James H. Anderson, M.D., class of 1860, President elect. "The clergy," Rev. Alexander R. Thomson. "The bar," Hon. Robert B. Roosevelt. "The press," Hon. Noah Brocks.

All of the speeches were well-timed and enthusiastically encored. Then followed impromptu remarks from several gentlemen called out by the President. Those of Dr. A. E. Macdonald, and the recitations of Mr. Andrews, were particularly well received. The Alumni Association prize of $100 for the best thesis on consumption was awarded to Dr. Ghislani Durant, of this city.

Bellevue Hospital Medical College.—The exercises attending the Sixteenth Annual Commencement of the Bellevue Medical College Hospital, held at the Academy of Music, attracted a large audience. The stage was occupied by the Faculty of the college, and a large body of the representative physicians of the city. The seats immediately behind the orchestra were appropriated to the use of the graduating class, which numbered 147. After a prayer by Rev. Dr. Beach, the degrees were conferred by Dr. Isaac E. Taylor, President of the Faculty. The following prizes were then awarded: For the best clinic report, $50, George Mingies; for the best examination in obstetrics, $50 was equally divided between A. W. Rand and B. M. Disbrow; for best examination in physiology, $50, George S. Conant; and for the best essay on psychology, $50 was awarded to A. R. Robinson. In his address to the graduates, Dr. McCosh congratulated them on having chosen "about the highest of all professions." No one, he said, sees so much of human nature as the practising physician. He has less of routine than any other, having some new phase of character or disease to come under his care every day. He was glad to testify that physicians were generally tender-hearted, and he believed they gave more in charity and did more charitable work than any other class. He advocated very strongly raising the standard of medical education, and was astonished to hear that Bellevue College had no endowment fund. He knew that there was money in this country, and there were many generous men—as an evidence of which, he said, the college with which he was connected had received, in some mysterious way, within the past few years, $2,500,000. After insisting on the need of an endowment and the addition of new branches of study, the speaker said the best way to prevent an over-crowding of the profession, of which there was some complaint, would be to require more thorough study. With some pleasant words of encouragement to the newly-made doctors, the address, which had received marked attention, was brought to a close. Elisha D. Leffingwell delivered the valedictory.

A New Bill for a State Board of Health for New York.—A bill has been introduced into the Assembly, the main provisions of which are as follows:

That the Governor appoint eight persons, one from each judicial district in the State, five of whom shall be physicians of not less than ten years' professional experience, who, with the Health Officer of the Port of New York, the President of the Board of Health of New York, and the President of the Board of Health of Brooklyn, shall constitute the State Board of Health. Of the eight persons first appointed, two shall serve for two years, two for four years, two for six years, and two for eight years.

That the State Board of Health shall meet at least once in every three months. No member of the Board shall receive any compensation excepting the Secretary; but the actual travelling and other expenses of the members while engaged in the duties of the Board shall be allowed and paid out of the appropriation made for its support. They shall select, annually, one member of the Board to be President, and one of the medical members to be their permanent Secretary and executive officer, who shall keep a record of the acts and proceedings of the Board, and shall receive an annual salary of $3,500. Then follows the usual detail of duties of the Board, regarding the care of public health, the making of sanitary surveys, the inspection of public institutions, registration of births, marriages and deaths, etc., etc.

Bogus Diplomas.—The following correspondence will explain itself:

[Copy.]

Camp Stambaugh, Wyoming Ter., Feb. 7, 1877.

Surgeon-General U. S. Army, Washington, D. C.:

Sir:—I have the honor to enclose herewith, for the information of the Surgeon-General U. S. A., a communication received by me on the 6th inst.

Very respectfully your obedient servant,

[Signed] Charles H. Dodge,
Hospital Steward U. S. A.

[Copy.] Buffalo, N. Y., January, 1877.

Sir:—Do you want a medical diploma? Some hospital stewards have obtained diplomas through our agency, and are practising successfully. Many are well qualified, but lack diplomas. The agent, having been a hospital steward during the late war, knows whereof he writes. Fully one-fourth of the physicians in the United States have procured their diplomas through our influence.

Through the private agent of a medical college which cannot be questioned, you are proffered a diploma for the consideration of fifty ($50 $^{00}_{100}$) dollars. *No security is given, but the diploma will positively be forwarded by registered mail.* Send money by registered, or ordinary letter, *at the agent's risk.* A limited number only will be disposed of. If you cannot invest, please hand this to one who may.

An early reply is particularly requested.

Yours truly,

Joseph P. Donner.

Address 580 Louisiana street, Buffalo, N. Y.

[We have received several copies of the above advertisement, forwarded to us by hospital stewards stationed in every section of the country. There is no doubt that the agent is making strenuous efforts to extend his business. Cannot some of our friends in Buffalo look after him?—Ed.]

Horse-hair for the Drainage of Wounds.—Among the modifications suggested in Lister treatment, but which is also applicable to other methods, is the substitution of horse-hair for the ordinary rubber drainage-tube, or the carbolized catgut drain of Mr. Chiene of Edinburgh. A coil of horse-hair, varying in strands according to the depth of the wound, is soaked for a considerable length of time in strong carbolic acid solution (1–20). This is then passed through the wound in the usual way, strands being taken out until the whole is removed. Catgut is regarded as superior to horse-hair, because it absorbs, while the capillarity of the latter is greater, and it is far cheaper. It is also far less irritating than rubber. —*Lancet*, Dec. 2, 1876.

Dr. Gurdon Buck.—On going to press we learn, with the deepest regret, that the health of this distinguished surgeon, so long in a precarious state, is being so rapidly undermined as to give rise to the greatest anxiety.

Original Lectures.

ON THE PLANS FOR THE JOHNS HOPKINS HOSPITAL AT BALTIMORE.

A LECTURE GIVEN TO THE MEDICAL PROFESSION OF BALTIMORE, FEBRUARY 5, 1877.

By J. S. BILLINGS, M.D.,

SURGEON UNITED STATES ARMY.

Part II.

We will now pass in rapid review the plans of a few existing hospitals, before showing the one proposed for the Hopkins Hospital.*

The first is that of the great hospital at Milan, the Maggiore, which in the last century was considered a model, and which can contain over 3,000 patients. The principal wards form two crosses, one on either side of a central yard; they are over 30 feet high, with vaulted ceilings, brick floors, and windows, the sills of which are about 15 feet above the floor, being placed above corridors on either side.

There is no heating apparatus; small iron stoves were used at the time I was there, the pipe projecting from a window. One wing of the cross was unoccupied and was being cleansed and purified; this, I was told, is done in regular rotation in each wing. The air in the main wards was pure; in the other, or corridor wards, it was offensive. I saw nowhere a prettier sight than was presented by the children's ward in this hospital, and nowhere a sadder one than the ward for inevitably fatal cases, in which are collected cases of cancer, etc., and to be moved into which may be taken as a death warrant.

The next plan which I show you is that of the celebrated Lariboisière, at Paris, with which I have no doubt you are all familiar, as it was the first hospital methodically constructed on the pavilion plan. The ventilating apparatus for this hospital has not proved satisfactory, for the reason that the flues and openings are too small, and the power applied insufficient. The next is that of the new City Hospital at Berlin, the Friedrichshain, the plans of which were prepared in accordance with the advice of Dr. Esse and Professor Virchow, and which may be considered as the most recent attempt in Germany to obtain perfection in a hospital, regardless of expense. The plot of ground occupied is situated in the suburbs of the city, and measures about 900 by 1,200 feet, containing 23½ acres.

The buildings consist of six two-story pavilions, four of one story, and two for isolating purposes, with an administration building, a kitchen and laundry, a mortuary, a bath-house and a nurse's home, and these buildings are entirely isolated from each other, being scattered over the entire lot and having no connecting corridors, but merely uncovered asphalt walks. The distance from the kitchen to the farthest ward is about 900 feet; and the day I was there, which was a cold one with snow on the ground, I saw the female employees bare-headed and bare-armed, carrying the food to the wards under circumstances which would certainly cause great complaint in this country. I could not learn, however, that lung diseases or catarrhs were specially prevalent among those thus exposed. The pavilions are built of brick and are handsomely finished, with tiled floors in the surgical wards. No clinics are held in this hospital, nor are students admitted. The total cost was 4,520,789 marks, or about $1,200,000; equal in this country to about $3,000 per bed.

The next plan is that of the Rudolph's Hospital in Vienna, which is the most recent large hospital in that city. This is on the corridor plan—the buildings being three stories high, and arranged around a central garden. The heating and ventilation are effected by large stoves of a peculiar kind, and the results are good, which is due largely to the careful superintendence of Professor Boehm, the manager of the hospital, who devised this method. Professor Boehm has made a special study of this subject of ventilation, and has arranged the apparatus for that purpose in the new Grand Opera-House at Vienna, which I had the pleasure of examining in his company. The arrangements are exceedingly complicated, more so than any I have ever seen, unless it be in the new Houses of Parliament in London. The system is one of combined impulsion by a fan and aspiration by means of gas jets, and the result is success, which, however, could only occur with skilled and careful management.

The next plan is that of the Jacobs, or City Hospital, in Leipzig. Here the pavilions are all one story, with ridge ventilation, connected by a corridor, and heated by large German porcelain stoves in the wards. It is difficult to obtain sufficient warmth in very cold days in winter, and in still warm days in summer there is very little movement of air.

The next plan is that of the new hospital at Wiesbaden, in which the pavilions are placed in echelon on the sides of a triangular plot of ground with the Administration building at the apex.

With the plans of the principal English hospitals, such as St. Thomas and the Herbert, I presume that you are sufficiently familiar. I regret that the plan of the new Royal Infirmary at Edinburgh has not yet come to hand. This hospital is now in process of construction, and will, when completed, be one of the finest buildings of this kind in Great Britain, if the heating arrangements prove sufficient. It consists of two rows of two-story pavilions, connected by an H-shaped corridor somewhat on the plan of the old Satterlee Hospital in West Philadelphia. We will now look at the arrangements of the ward in one or two of these hospitals.

The first is of one of the Leipzig hospital wards. In this there is a large sun or day room at the farthest end of the ward, and the service-rooms are next the corridor, in fact, actually in the ward itself; yet there is no unpleasant smell, owing to the regular and frequent use of disinfectants.

The next is the plan of one of the one-story surgical wards of the Friedrichshain Hospital. The heating is by hot water; the warm fresh air is brought in the middle of the ward to the top of a sort of table covered with wire netting, and is taken out through registers placed at the side near the floor, being drawn downwards into a duct which passes into an aspirating chimney. This chimney is driven in part by the waste heat from the furnace which effects the heating, and in part by a separate furnace intended exclusively for this purpose. The arrangements of valves and ducts is a complicated one, and should have skilled supervision to produce the best results. The consumption of coal for each pavilion is about 1800 pounds per day. In this as in all European hospitals the patients dine in the ward, but a day-room is provided for those who are able to leave their beds, and this is separated from the ward by the large chimney which rises in the centre.

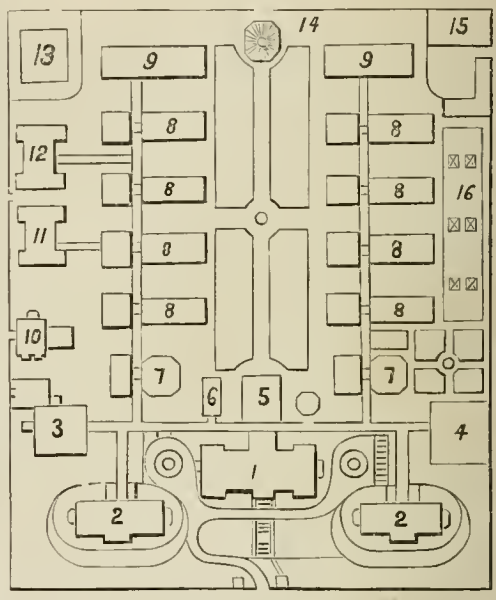
* The plans referred to were shown on a screen by means of a magic lantern.

The next plan is that of two floors of the new pavilion recently erected in Chicago for the Cook County Hospital. This pavilion is four stories high, three of which are occupied by wards. It is heated by steam, and ventilated by a large aspirating shaft which passes up the centre of each ward. The heating has not proved satisfactory during the very cold days of the past winter, but it is said that this is due rather to bad management than to defect in the apparatus. The air in the lower wards is purer than in those above. The closet and bath rooms are, as usual, at the end of the ward remote from the connecting corridor, but are placed at one side, around a separate shaft which has independent aspirating power. On the other side is a small ward for isolating purposes, heated and ventilated mainly by a fire-place. This arrangement is taken from the plan which I first proposed for the Hopkins Hospital, and has some special advantages, particularly as regards the isolation of the patients in the small wards. The next plan is that of one of the wards of the Roosevelt Hospital in New York city, in which, by a peculiar arrangement, the service rooms at the remote end of the wards are so placed that they form no projection beyond the side of the ward itself.

The next plan is that of a floor of the new building now in course of construction by the authorities of the New York Hospital. This building is seven stories in height, will accommodate two hundred patients if crowded, and will cost about $750,000. All the floors are tiled, and the only wood-work in the building is in the window-sash, doors, and door-frames. The heating is effected by steam, the ventilation by a fan for impulsion placed in the basement, and another fan for aspiration placed in the top of the centre building. The experiment is a bold one, and the results obtained, if carefully observed and accurately reported, cannot fail to be of interest.

The next plans are those of wards proposed for the Johns Hopkins Hospital. It has been considered by the building committee very desirable that the south end of all the wards should be entirely clear of service rooms, and be freely exposed for light and air, and these plans are arranged to carry out this idea. The one which is most generally preferred is that in which the ward is entirely separated from all service rooms, these last being collected in a building placed in the opposite side of the corridor. The majority of those whom I consulted, expressed doubts as to the advisability of removing all the service rooms to the north end of the ward, but admitted that if thorough ventilation and cleanliness could be preserved, the objections to it were rather theoretical than practical. A few critics insist that the nurse should have a separate room connected with the ward. This applies especially to the male wards in connection with the employment of female nurses, and is urged by some of those who are especially interested in this department. As I understand the duties of the female nurse, they are to be performed in the ward itself. I consider that to be her room, the absence of which is complained of, and while on duty, her place for rest is in the middle of it.

I now show you the block plan proposed for the hospital. The lot upon which it is to be placed has an area of about fourteen acres, and is situated on the side of a hill within the limits of the city. The buildings proposed consist of an administration building, and two wards for pay patients on the west, or main front, looking down towards the city: two octagonal wards of two stories each, eight one-story pavilion wards, two isolating wards, some tents; the nurses' home, the kitchen, the dispensary and operating theatre, a mortuary building, an apothecaries' establishment, a bath-house, a laundry, a residence for the superintendent, a green-house and stables. The wards are arranged around a central garden, with the south ends projecting free. The operating theatre, dispensary, and mortuary building, are placed near the adjacent square upon which the medical school is to be situated. The wards, administration building, and kitchen, are connected by a corridor of the same height as that of the basements of the wards, namely, ten feet, so that the top of the corridor forms an open terrace walk, level with the floor of the wards.



BLOCK PLAN FOR PROPOSED JOHNS HOPKINS HOSPITAL.

EXPLANATION.—1. Administration Building; 2. Pay-Wards; 3. Kitchen; 4. Nurses' Home; 5. Dining-rooms for Medical Officers and Nurses; 6. Pharmacy; 7. Two-story wards; 8. One-story wards; 9. Isolating wards; 10. Residence of Superintendent; 11. Dispensary; 12. Operating Theatre; 13. Mortuary Building; 14. Green House; 15. Laundry; 16. Space for tents.

This plan is approved by the majority of experts to whom it has been submitted; but as you may easily infer from the widely different plans of some of the most recent hospitals both of this country and of Europe, which I have shown you, it cannot be said that the general principles of hospital construction are as yet settled on any scientific basis of observed facts, and I found, in fact, nearly as many opinions as persons,—"opinions often marked by all that decision and breadth of statement which distinguish those of persons unbewildered by the slightest experience." I met with distinguished medical men and professors who object to the pavilion plan, who prefer wards with corridors at one side to those with opposite windows, who thought that there might be too much ventilation for a sick man, setting aside the question of draughts, and who spoke of a stuffy atmosphere as a good thing for certain cases. Some wished to concentrate the buildings as much as possible, but the majority prefer, when it can be done, to scatter and isolate them.

I have not time to show the plans of the general buildings, but I will call your attention to one, namely that for the dispensary and the operating theatre.

I consider this dispensary for the treatment of the sick poor who remain at their own homes, as one of the most important features of this hospital, both on

account of the amount of suffering which may be relieved by it, and on account of the means of instruction for nurses and students which it affords. I therefore inquired particularly into the working of similar institutions abroad, and especially into that of the largest one, at St. Bartholomew's in London, where between 600 and 1,000 patients are seen and prescribed for daily. The plan before you is for two one-story buildings connected by a corridor. It is mainly through these and the mortuary building that I think the medical school should be connected with the hospital, and the general arrangements appear to me to be satisfactory for that purpose.

The responsibility of recommending one particular plan for this hospital, to the exclusion of all others, is very great. The whole subject of hospital construction is at present in a revolutionary condition. With almost every existing hospital there is more or less dissatisfaction, while from the most recent attempts to produce a perfect structure, the results are not yet known. I cannot learn how much healthier one-story wards are than those of two stories or more; the general opinion is, that they are better and more easily ventilated, that is all. It is objected by some that the buildings are spread over too much ground, and that it will be difficult to administer it, but the Friedrichshain is still more scattered, and has greater distances, and yet seems to work very well.

In organizing the university, or the medical school, it is possible to proceed gradually and tentatively, getting the most important thing, namely the men, first, and leaving the buildings to be a gradual outgrowth of the necessities; but if anything like a permanent structure is proposed for the hospital, the plan of the buildings must, to a great extent at least, be first decided on, and this is peculiarly the case in the plan proposed, where it will be desirable that the foundations of all the buildings on the west front be laid before grading is commenced, in order to avoid excavations in newly deposited earth, which buildings are the largest and most costly of the establishment.

In recommending to the trustees that this general plan be adopted, I have been influenced by the following considerations:

1. Will the sick in the wards be placed in the best possible conditions as to light, pure air, warmth, etc., so that there shall be nothing in the surroundings to hinder their recovery? The answer to this is yes, and it may be considered as unanimous, for the advocates of other plans do not claim that their plans are better as regards the sick, but that they are as good.

2. So far as the medical department of the university is concerned, and as giving the necessary facilities for the education of physicians, and for advancing our knowledge of disease, are these plans satisfactory? The answer is yes, and is, I believe, unanimous.

3. So far as the training of nurses is concerned, are these plans suited to induce the class of women whom it is desired to secure—to enter and remain in this hospital? To this also, the answer is in the main affirmative, although doubts are expressed by some.

4. Are the plans practicable, and to be approved from the point of view of the architect and engineer? The answer is yes.

5. Can as good results be obtained by some other plan which shall cost much less in construction, or in administration, or in both; or if the results may perhaps be not quite so good, cannot relief be afforded to a greater number of people with the same expenditure? In other words, taking all things together, cannot the money be better employed in building a cheaper hospital, which shall also be more compact and cheaper to manage, and which if not certainly as good in the hygienic, educational, or architectural point of view, will yet afford a sufficiently good care to a larger number of persons.

Upon this question there are great differences of opinion. Some hold that the expenditure upon the buildings of an hospital should never exceed $1,000 per bed, and that the cost of administering it should never exceed $1.00 per day, per patient, while others say that the best possible results should be aimed at regardless of the cost.

As I have above stated, I feel warranted in saying to the trustees that the plan submitted is, from the point of view of the physician, the hygienist, the architect, the educator, and the investigator, in all respects as good as, and in some better than, that of any hospital now in existence, or which has been proposed.

I must also say that, constructed as the architect proposes to construct it, it will be a solid and substantial group of buildings, and a comparatively costly one.

It will also be more expensive to manage than the great majority of hospitals of its size in existence, but it will accomplish more.

If I supposed that the number of sick poor in the city of Baltimore in urgent need of the aid of this charity was in excess of the number who can be provided for in this plan, I should advise such an amount of change and consolidation as would admit of doing the greatest good to the greatest number.

As I have no reason to think this, or that even 300 beds would not at the present time be sufficient to meet the demands upon this charity, I advise the adoption of the plan presented, but I recognize fully that this is not a medical, architectural, or scientific question, but one of finance, which belongs peculiarly to the trustees to determine, and their decision of which, whatever it may be, will be unsatisfactory to a certain number of persons. The question of cost in this case means, first, the time when the hospital shall be open to patients; second, the number to be cared for.

I base my recommendation upon the belief, that *in this particular case* it is best for the sake of the sick, of the school, and of suffering humanity throughout the world, to try to give to what patients we do receive, the very best possible facilities for treatment which modern science can suggest, and that the result cannot fail to be a valuable one.

I do not, and cannot say that the plan I have recommended is the best possible plan; but I believe it complies with the direction of the founder, that "it shall provide for an hospital which shall, in construction and arrangement, compare favorably with any other institution of like character in this country or in Europe."

Certainly I have seen nothing which I think superior, or in some respects equal to it: and if it has a medical, surgical, and nursing staff, and a superintendence of corresponding quality, I am quite sure that the results of treatment obtained in it will not be surpassed elsewhere.

In conclusion, permit me to express the hope that the physicians of Baltimore will not fail to take that interest in the plans for, and progress of, this hospital which is certainly due to the splendid possibilities which it presents for the promotion of the science and art of medicine.

Over in Washington, only an hour's ride away, there is open to all physicians a collection of medical literature unsurpassed in extent, variety, and value for practical work; while very soon in your own city you will have laboratories and hospital buildings as com-

pletely fitted for purposes of research and the promotion of increase of knowledge as any in the world.

But the books and buildings, machinery and apparatus thus provided, will not do the work. Remember the question asked by Professor Huxley, "What are you going to do with all these things?" Where shall we find the men who will make the best use of these opportunities; men who will not only teach the few students who may gather here, but all studious thinking medical men in all countries, because they will make known new signs, means of prevention, and methods of treatment of disease? Men who can impart to their pupils not only knowledge, but a thirst for knowledge, thus preparing worthy successors to themselves, and who will make the name of this city as well known in medical literature as were the names of Cos and Sidernum of old.

These are problems the right solution of which is as important to the hospital as to the university. I commend them specially to your attention, and I hope and believe that at last satisfactory practical answers will be given; in which case there can be no doubt that in the fulness of time those results will be obtained which, both as physicians and as citizens, I am sure we all desire.

Original Communications.

NEEDLE IN LARYNX—REMOVAL BY EXTERNAL INCISION—RECOVERY.

By CHAUNCEY MITCHELL FIELD, A.M., M.D.,

OF BOUND BROOK, N. J.

Patient, Miss M. E. B., of Bloomington, N. J.; age twenty-five years; fine physical development. While dressing to attend an evening concert, and attempting to fasten a rosette on the bosom, the thread broke. Carelessly placing the needle between the lips she sought another thread, and while so engaged, on drawing a long breath, it slipped from its embrace, and lodged itself in the larynx.

The patient was immediately seized with violent coughing and choking, and in her extreme distress and suffering she rushed (seeking air) to the door and out of the house. In a short time the attack ceased, and she breathed freely for a few minutes, when again suddenly intense dyspnœa, with coughing and strangling, came on, the face becoming tumid and purple, and the patient nearly suffocated.

At 8 P.M. I saw the patient, within half an hour after the unfortunate accident. On my arrival I found her sitting in an arm-chair erect, holding the throat with her hands, greatly excited, breathing rapidly, not laboriously, and manifesting severe pain.

Quieting the nervous excitement by a few assuring words, the breathing became natural, simply marked by extremely cautious inspiration and expiration; continuous and repeated attempts at swallowing. When spoken to she answered plainly and distinctly, though she complained of pain at the time. There was no change whatever in the character of the voice.

On examining the throat I found a very slight prominence at the lower edge of the cricoid cartilage, and to the right (patient's) of median line, the patient placing her finger on the spot, and saying "she knew it was the needle," and complaining of pain on pressure of the spot.

I first tried the laryngoscope, but the excitability and irritability of the whole larynx made it useless.

On consultation with Dr. B. B. Matthews it was decided to attempt removal of the foreign body, or at least open the trachea. The patient having been anæsthetized I made an incision three-quarters of an inch long in the median line over the cricoid cartilage. Coming down on the cartilage, and using this as a guide, I shoved the tissues aside with the handle of the scalpel until I arrived at the prominence indicating the *habitat* of the needle, the rays from a lamp furnishing certainly not the best light for such operation. Then, introducing finger and feeling the prominence, I determined to cut directly through it, hoping to come down exactly on the enemy. As I made the incision, steadying the trachea with the fingers of my left hand, the patient vomited, and then followed an attack of coughing and strangling until her face and neck were decidedly congested, and causing me to lose the locality of the trouble. This passed off in a very short space of time, and again finding the prominence I steadied the trachea with the left hand and incised the cartilage through its whole thickness; then passing a probe I hit the needle, and taking an ordinary dissecting forceps, after two abortive trials, on the third attempt I seized the needle by the head and succeeded in extracting it. Its position was across the larynx antero-posteriorly; head anterior, point sloping slightly upwards, backwards, and somewhat to the left of the median line, evidently piercing the posterior wall of the larynx. On its removal immediately every disagreeable symptom disappeared. The body is an ordinary sewing needle, size number seven, and was black as they are found when removed from other parts of the body. The hemorrhage was very slight. The edges of the incision were brought together by means of adhesive plaster and united by first intention.

Patient has never had any disagreeable symptoms since, and made an excellent recovery.

On consulting Gross on "Foreign Bodies in the Air-Passages," I find the records of three cases of some interest in this connection.

First—The case of De La Mertiniere,* where a pin entered the trachea from outside through the integument. The patient (boy) had convulsions, and was breathing laboriously and scarcely living. On examining the trachea he felt, deep under the skin, *just below the cricoid cartilage*, a small circumscribed swelling the size of a lentil, and of unnatural hardness. Taking this as a guide he cut down as far as the trachea, where he came in contact with the foreign body projecting more than a line. After some difficulty he succeeded in extracting it with a pair of tweezers. The foreign body was a headless brass pin, fifteen lines in length, and had traversed the trachea from left to right and pierced its posterior wall.

The success of the operation was complete.

Next—A case by Mons. P. F. Blandin,† in which a man let a needle slip through the nose, together with a large thread, into the larynx. Much cough and irritation followed. Patient suffered remarkable hoarseness, dysphagia, and *almost entire aphonia*. (This may have been due to the swelling of parts, as record states that the larynx was much swollen, since in my case there was no change in the voice.) Laryngotomy was performed, the thyroid cartilage being divided in its whole length along the median line; still the needle was not extracted, but the next day was found in the dressings of the wound (19) nineteen lines in length, and of black color.

* P. 51, Gross on Foreign Bodies.
† Ibid., p. 297.

The cure was complete.

Again—I. Kearney Rodgers performed laryngotomy* for a supposed needle in larynx, but none was discovered. The wound was closed, healed, and patient ultimately did well, though the foreign body was not known to have been removed.

Lastly—Mott† removed a shawl-pin from trachea of a small child; but this pin had a large glass head, which partially blocked up the passage, and so places case somewhat in another class.

A CONTRIBUTION TO THE HISTORY OF HYPERMETROPIA.

By EDWARD T. ELY, M.D.,

NEW YORK.

It was not until Prof. Donders's publications in 1858–1859 that the importance of the ocular defect known as hypermetropia, together with its nature and treatment, were fully and correctly shown. It now occupies such a prominent place in ophthalmology, and its proper recognition and treatment have given such beneficent results, that everything connected with its history acquires a special interest. This leads me to call attention to an article which was published in this country nine years before Donders published his views. It was written by Prof. Chester Dewey, and appeared in *Silliman's Journal* (Vol. 8, p. 443) in 1849. I was led to look over the files of the journal by my father, Dr. W. W. Ely, of Rochester, N. Y., who told me that Prof. Dewey had often talked with him about a peculiar form of vision which he had noticed, and that he had at one time given a written account of it. The article is quoted just as it appeared. In a subsequent number of the journal, the author calls attention to the matter again, and reports some additional cases:

"*On an Unnoticed Kind of Abnormal Vision.*

"BY PROF. C. DEWEY.

"There are two well-known kinds of *abnormal* vision in eyes not diseased, the *far-sighted* and the *near-sighted*. The former occurs in good eyes as persons advance in life, beginning about the age of forty, and is remedied by *plane*, or better, by *convex* spectacles. The latter is found in youth or young persons, and finds its remedy in *concave* glasses. The far-sighted are unable to see near and small objects, and remove them to an inconvenient distance, while they see remoter objects perfectly well without glasses. The near sighted are unable to see small objects unless they are brought inconveniently near, and have no distinct vision of remote objects.

"There is a kind of abnormal vision, different from either of these, which is not far-sighted or near-sighted, but in which near, small objects, or larger, distant objects are not seen with distinctness. This imperfection occurs in children and young persons, and is remedied by convex spectacles which are suited to the eyes of persons from sixty-five to seventy years of age. The younger eyes require the older glasses, and with advancing years less convex glasses are required. At the age of forty-five or more this kind of abnormal vision becomes much diminished. As the young use the glasses of the far-sighted, this kind may be called *neo-macropia*. It is evident that convex glasses produce that change in the rays of light which fits such eyes to see distinctly small and large objects at varying distances. This fact proves that there is no defect in the *adjusting power* of the eyes. The cause, then, is to be sought in the *structure* of the eye. As this kind of eyes does not appear to be too much or too little convex, and as the image is not formed soon enough in the eye, or is too far back, either one or all of the three following may be the cause:

"(1) Too little convexity of the crystalline lens; or (2) its position too near the retina; or (3) its too little density. The second is the probable cause. Spectacles sufficiently convex would bring the rays to a focus, let either or all of the three causes operate, and, with the usual adjusting power of the eye, give distinct vision for near or remoter objects.

"Though this kind of abnormal vision seems not to have attracted attention, for I have found but one *allusion* to it in consulting authors on optics, it is relatively common. In New England and New York more than fifty instances of it have come to my knowledge in the five or six years past. A child of fifteen was able to see distinctly for the first time by the use of his grandfather's spectacles. A young man of eighteen required convex glasses of ten inches focus, while persons of seventy years use those of fourteen to eighteen inches focus. Children often make little progress in study because they do not see objects distinctly, though the defect is not suspected by them, and is utterly unknown to parents and teachers. The knowledge of this subject will make spectacles a still greater benefit to our race."

It will be seen from the above that Prof. Dewey appreciated the nature of hypermetropia with remarkable clearness, especially when we remember that the subject lay outside of his particular field of work, and that his observations were made before the invention of the ophthalmoscope. He observed a large number of cases, and he located the defect in the *structure* of the eye, as distinguished from the *adjusting power*. He went farther, and concluded that the particular fault of structure consisted in a too short distance between the lens and the retina—which is true. Although he does not appear to have been aware of *latent* hypermmetropia and of accommodative asthenopia, he nevertheless appreciated some of the sufferings of school-children from their eyes, and predicted the enlarged use of spectacles, which is now an established fact. He was mistaken in thinking that hypermetropia naturally diminishes with advancing age. His remark about plane glasses in connection with presbyopia is probably a compositor's error, for it is not to be believed that he considered such glasses as possessed of any refractive power. It is to be regretted that he did not give the name of the work in which he says he found an "*allusion*" to his subject; but from the title of his article, and from the fact that he has italicized the word *allusion*, it is probable that he derived little or none of his information therefrom.

Whatever value may be attached to Prof. Dewey's observations by those familiar with the subject, they are at least interesting from having been made (apparently) independently, and by a man very busily engaged in other pursuits. They certainly furnish one of the most satisfactory descriptions of hypermetropia—and perhaps the best one—antecedent to that of Donders. If his article had received that attention from our physicians which its importance merited, America might have had some of the honor which now belongs to Holland.

Professor Dewey was born in Sheffield, Mass., Oct. 25th, 1784. He was Professor of Mathematics and Natural Philosophy in Union College for seventeen years from 1810; and from 1850 to 1860 he was Pro-

* Gross on Foreign Bodies, p. 417.

† Ibid., p. 335.

fessor of Chemistry and Natural Philosophy in Rochester University. He was also a doctor of divinity. In addition to his educational and ministerial work, he made a special study of *sedges* for forty years, and was an acknowledged authority upon that subject. His death occurred in Rochester, N. Y., Dec. 15, 1867.

For the earlier descriptions of hypermetropia, the following works may be consulted:

Memoires et observations anatomiques, physiologiques et physiques sur l'œil. Jean Janin. Paris et Lyon. 1772. P. 429.
Observations and Experiments on Vision. Wm. Chas. Wells, M.D., F.R.S. Philosophical Transactions, 1811, p. 378.
Observations Relative to the Near and Distant Sight of Different Persons. Mr. James Ware. Philosophical Transactions, 1813, p. 31.
Practical Treatise on Diseases of the Eye. Wm. Mackenzie, M.D. London. 1830. Under heading, Presbyopia.
Lehrbuch der Ophthalmologie fur Aertze und Studirende, 1845, p. 116.
Beitrag zur Physiologischen Optik. Göttingen. 1845 P. S.
Die Anomalien der Refraction und Accommodation des Auges. F. C. Donders. Wien. 1866.
NEW YORK, 20 E. 30TH ST.

Reports of Hospitals.

ST. FRANCIS' HOSPITAL.

ACCIDENTAL LOSS OF DRAINAGE-TUBES IN PLEURAL CAVITY—SUCCESSFUL REMOVAL BY OPERATION.

SERVICE OF DR. JOHN H. RIPLEY.

(Reported by CHAS. F. STILLMAN, M.D., Asst. House Physician.)

Edward Dorsey, 21, *single*, *Ireland*, *cotton-spinner*, was admitted Jan. 11th, with the following history: A year ago last November was attacked with pleurisy of the left side, which was treated without avail by counter-irritants, and in the following April ℥ xxxi. of clear serum were removed by aspiration. After the lapse of six weeks the effusion was found to be purulent, and an incision was made at the junction of the axillary line and seventh intercostal space, ℥ xxvi. of creamy pus being evacuated, and the wound allowed to heal. In July the incision was renewed and nearly ℥ i. removed; a drainage-tube being inserted, slipped into the patient's pleural cavity the ensuing night. The wound has been draining steadily ever since, but last Christmas he was so unfortunate as to lose another tube in a similar manner, and he entered this hospital Jan. 11th for relief, his attending surgeon having previously attempted their removal without success. On admission, the patient is well nourished, and complains only of occasional pain in the seventh intercostal space, radiating towards the sternum.

The left side of the chest measures two and a half inches less than the right in the xiphoid line, and possesses greatly diminished lateral expansion, with partial effacement of the intercostal spaces by approximation of the ribs. Vocal fremitus on the affected side increased in the mammary, and absent in the infra-clavicular and axillary regions. Extra resonance on percussion in the infra-clavicular region, while in the axillary region there is dulness, which inferiorly becomes flatness, the mammary and infra-mammary regions being slightly extra-resonant.

Auscultation reveals very feeble respiration *anteriorly*, with absence of the respiratory murmur over the lower fourth, together with an occasional sticky friction sound. *Posteriorly* in the upper half the respiration is prolonged, with absence of respiratory sound over the lower half and metallic tinkle.

Jan. 18th.—It was decided to operate for the removal of the tubes, and accordingly an incision was made by *Dr. Ripley* in the seventh intercostal space, beginning at a point six and a half inches from the median line and extending posteriorly a distance of four inches. The seventh and eighth ribs were so closely approximated that, at the point where the drainage-tube had been in constant contact with them, a portion of each had necrosed, and it was found necessary to excise a portion of the eighth rib before the proper instruments could be introduced into the pleural cavity. An angular fracture was also found on the seventh rib superiorly, possibly caused by an attempt to force the ribs apart in the operation he sustained before admission. The pleural cavity having been entered after the removal of the dead fragments of bone, its interior was carefully explored by means of uterine forceps, and an Emmet's silver probe so bent at the extremity as to form a hook, and yet so flexible as to offer but little danger of perforating the lung.

After repeated and cautious attempts, the two tubes were found about an inch apart, lying posterior and superior to the incision. The first was found and removed by the forceps, the second by the probe; both being constructed of the material ordinarily used for gum-elastic catheters. The tube retained in the chest since last July measured seven inches in length, was about the diameter of a large goose quill, and somewhat blackened, although but very slightly absorbed, by the fluids in the chest. The other tube measured six inches in length and appeared very bright and fresh. The numerous adhesions and thick layers of fibrine contained in the sac rendered the operation quite difficult. The patient was placed in bed and ¼ gr. morphine injected hypodermically every two hours until midnight, after which he slumbered easily until morning. The next day the temperature did not obtain more than 100° F., and the highest point reached the second day was 100⅘° F. in the rectum, since which time it has not exceeded 100°. On the 23d, a drainage-tube was inserted in the lower portion of the incision, the upper having united by first intention, and the patient has since been doing well, the amount of discharge daily diminishing.

Progress of Medical Science.

RUPTURE OF THE HEALTHY ŒSOPHAGUS.—Though cases are sometimes recorded where there has been perforation of the œsophagus in the progress of an abscess, or from the extension of an aneurism, the mechanical laceration due to swallowing angular foreign bodies, the rude introduction of tubes and bougies, the extension of morbid growths, and other similar causes, there does not seem to have been much satisfactory evidence to show that a previously healthy œsophagus may be suddenly ruptured by muscular action. The literature of this curious accident is reviewed by Dr. Fitz, of Boston, with the addition of a case occurring in the practice of Dr. Allen. The patient, a gentleman of thirty-one, addicted to alcoholics, was suddenly attacked, while at supper, with difficulty in swallowing. His face did not become blue, and there was no difficulty in respiration. After an hour's hard exertion, however, he managed by great effort to expel the obstructing material, which was a tough piece of meat about an inch in length, and half an inch in breadth, which was thrown out with noise and force, and the gentleman fell back exhausted, and almost immediately ejected some clotted and liquid blood. General emphysema of the face

and neck set in, with fever, nausea, and tetanic spasms, death ensuing after seven and a half days. Dr. Fitz finds that a study of the cases usually quoted exhibits very defective evidence in their favor, and that in every instance but one the lesion may have been due to post-mortem softening, causing rupture, as often noticed in the stomach. In a medico-legal point of view, these cases are valuable, as showing that muscular action alone can produce the rupture. Soon after the impaction of the foreign body violent efforts are made to expel it. The chest is inflated, and violent efforts are made by the respiratory muscles. In the course of an hour emphysema occurs in the neck and face. Pain is not noticed particularly at first. It is apt to be referred to the emphysematous parts. Auscultation of the œsophagus may clear up some of the difficulties in the diagnosis.—*Am. Journal of the Med. Sci.*, January, 1877.

Traumatic Tetanus continuing Forty Days—Recovery.—Dr. Chamberlain, of San Francisco, records this remarkable case: A lad of fifteen had his arm caught between two cog-wheels of a printing-press, and sustained a lacerated wound some six inches long, extending above and below the elbow and two-thirds round the arm. The entire cutis and small pieces of muscular tissue were torn out of this space. There was no fracture of bone or dislocation. Everything progressed favorably until the ninth day, when headache and stiffness of the muscles of the neck and jaws set in. On the tenth there were tetanic spasms, returning every hour and lasting from a quarter of a minute to four minutes. The treatment ordered was tincture opii. forty drops every two hours, alternating with hydrate of chloral and bromide of potassium, of each fifteen grains. Bladders of ice, changed every hour, were applied to the neck and back for nineteen days and nights. On the eleventh day there were two unusually severe spasms, but afterwards they averaged, when the patient was awake, thirty-eight an hour, night and day, until the twenty-fourth day, when they began to prove less frequent and gradually decreased until the forty-sixth day, when there were only two. The laudanum was increased during the first twelve days to sixty drops, given in the same intervals as at first, but subsequently the amount was diminished. During the first two weeks of the spasms thin oatmeal gruel, beef-tea, and milk, were the principal articles of nourishment, and were given in the intervals between the spasms, when the muscles of the jaws partially relaxed. Seventy-five days from the receipt of the injury the wound had nearly closed.—*Pacific Med. and Surg. Journal*, Jan., 1877.

Acute Traumatic Tetanus Successfully Treated with Chloral Hypodermically Injected.—The disease was the result of a wound received during a drunken fit, followed by exposure to unusual cold, in a patient of extremely intemperate habits. He was first seen by Mr. Salter two weeks after the accident, and just as tetanic spasms were setting in. It was decided to use hydrate of chloral, and, as he could not swallow, hypodermic injection was resorted to, five grains dissolved in five minims of water being injected into the right arm. During the remainder of the day the injections were practised at intervals of ten, fifteen, or thirty minutes, as the necessity seemed to demand. About one A.M., Feb. 15, a terrible spasm occurred, and ten grains were immediately injected. The treatment seemed to arrest the spasms, and was continued during the day. On the 16th, he had some snatches of sleep, and, though weaker, was able to swallow small quantities of beef-tea and raw eggs with milk. During the 17th, injections were made sometimes every half hour, and sometimes after an hour or two's interval. On March 2d he was decidedly better; he had about ten spasms and ten injections of from six to ten grains of chloral. From the 3d to the 7th the injections were made at intervals of two, four, or six hours. In a few weeks later he was convalescent, and a year after quite hale and hearty, doing good work as a laborer.—*Practitioner*, Dec., 1876.

A Case of Slowly Advancing Sclerema Attended by Cardiac and Gastric Disorders.—Dr. Henley, of London, has had this patient under observation for nearly five years. He is now fifty years of age, of feeble constitution, and a stone-mason by trade. In February, 1872, he was unable to continue his work because the indurations in the subcutaneous tissue of his hands prevented him from closing them. The wrists and forearms are also involved, and there has been a tendency to gangrene at the ends of the fingers. The most marked characteristics of the disease, however, are to be seen on the neck, where the skin in front "forms a thin, hard, rigid plane, gathered into vertical ridges, feeling like knotted cords." On the sides and back of the neck there are red and white patches, the latter of ivory whiteness and opacity. The patient has been becoming feebler gradually, and suffers greatly from stomach derangement and attacks of palpitation. The author believes that the sclerema is merely the direct result of atrophy, *pari passu* of the blood-vessels and lacunæ and canaliculi of the connective tissue, the atrophy being due to depression of the sympathetic or vaso-motor nerve-power. The whole disease may then be regarded as one in which there is a slowly progressing paralysis of the sympathetic nervous system, the affection being manifested at the periphery by the atrophy of the connective tissue, and nearer the centre by grave disturbances of the circulating and digestive functions.—*Lancet*, Jan. 27, 1877.

Orchitis Treated by Puncturing the Testicle.—The following case is of interest as showing the value of puncture, and in view of the attention which this treatment has latterly attracted. A patient, aged 41, was admitted into Westminster Hospital on the 24th of October last, suffering from orchitis, the result of a strain. Mr. Macnamara ran a grooved needle into the testicle, a few drops of serous fluid escaping along the groove. The relief was immediate; the inflammation soon subsided, and the patient left the hospital on November 3d. Mr. Macnamara has not been able to determine in any given case whether the disease was confined to the epididymis or only to the testicle itself. The success obtained in this instance was the rule. In his own person, having injured the testicle some years ago while riding, the testicle was punctured at his own solicitation, and with the happiest results, and he never hesitates to recommend his pupils to adopt the treatment, as there are few diseases in which pain can be so speedily and effectually removed.—*Lancet*, Jan. 13, 1877.

Functional Disorder of the Heart Characterized by a Slow Pulse.—The slowness of the pulse is due, not to severe cerebral lesions, nor to acute meningitis, nor to uræmia, nor to poisoning, but to simple functional disturbances. In the great majority of cases it is associated with cerebral disturbances of a secondary nature, such as epilepsy, delirium, or mental and physical prostration. In one of the cases observed by Dr. Flint, the pulse was only sixteen in the minute. Dr. Archibald Hewan's pulse was twenty-four, through during a rheumatic fever it increased to thirty-two.—*Lyon Médical*, Dec. 24, 1876.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE ENDOWMENT OF MEDICAL COLLEGES.

During the late commencement exercises a great deal has been said concerning the endowment of medical colleges. In fact, this has been the burden of all the addresses which have been delivered in this city on the occasions mentioned. So far as a spirited advocacy of the measure is concerned, the outlook towards fundamental reforms in medical teaching is quite promising. The colleges, by this course, virtually acknowledge that the medical shop business is beginning to lose its popularity with the profession, and that something must be done to anticipate the necessities of a near future. The spirit of "glorious rivalry," which is said to exist between the colleges in our large cities, is almost entirely governed by the size of the class and the proportionate increase in income. Of course a given standard is maintained with all, but this is always low enough to meet the mental capabilities of the ordinary matriculant. The colleges say they must have students, or perish. This is the first consideration, and they must obtain them at all hazards. When the faculties are asked the question whether the requirements of medical education are high enough, they frankly answer in the negative, but at the same time admit that any necessary restrictions regarding admission, or extra rigidity in examinations, would be pecuniarily suicidal. And, after all, are we not forced to the conclusion that the shop cares more for the number of customers which it can serve than the quality of goods which it can offer? If the deans of any of the medical schools are asked concerning the prosperity of their respective institutions, the size of the class is always mentioned as of the first importance. No impartial observer would like to believe that the faculties are not entirely independent; but how, under the circumstances, can we prevent such a belief? But this is by the way.

To come back to the original question of endowment, every one can see that it is the only one which offers any solution for our present troubles. The manner, however, in which these endowments can be obtained brings up many perplexities, and involves the exercise of much reasoning upon expediencies.

It would appear to be useless to hope for any help from such as usually bequeath money to public institutions. The charity which the rich have for the medical profession finds a vent in legacies to infirmaries, dispensaries, and hospitals. Medical colleges, as institutions of learning, are beyond the pale of public sympathy. There is really no motive on the part of a liberal giver for taking them into any sort of consideration. We can easily understand how some rich man may in his latter days give to the Church or to charity. His object is to diminish the size of his camel, that it may the better squeeze through the eye of the needle. There is no chance for aid from the government, as it really has no direct interest in the prosperity of any of our institutions of learning. All the endowments which have ever been made to our universities have emanated from those who were specially interested in their prosperity. Most, if not all, of these schools have been under the patronage of some particular religious denomination, and have flourished accordingly. The obligation to give has been a matter of conscience, and, as usual under the circumstances, has been liberally and cheerfully discharged. It was almost a sarcasm for one of the commencement orators, in speaking of the necessity for endowing a particular medical college, to remark that the literary institution of which he was President had within the past few years received donations amounting to over two millions of dollars. This shows the difference between literary and medical schools, and may help us to point a suggestive moral.

The benefit of association with these literary schools naturally occurs to every one. If medical colleges cannot obtain aid of themselves, they may accomplish the same object by becoming parts of a large and prosperous university. And this, after all, appears to be the surest and speediest method of obtaining endowments. The university plan of education, which is developing in this country, will make it necessary for every properly conducted educational establishment to have a medical department. Many of these literary colleges, which are well founded and are constantly receiving large donations, are without facilities for medical instruction. Many excellent medical schools are similarly isolated. It does not need any trick of logic to prove that both would be benefited by a union. A medical school which has gained a reputation by itself would add lustre to any university, and would be a desirable acquisition. It would necessarily yield up its power of individual-government, and be under the nominal control of a university council, but this is a small sacrifice in one direction for great gain in another. The University Medical School, of

this city, is the type of a union to which we refer, and its only misfortune is that the University itself is poor. But the latter may in time become handsomely endowed, and its medical department, which is its brightest and most promising child, must come in for its share of pecuniary benefits. At present it can do no better, unless it denies allegiance to its recognized and legitimate head.

The College of Physicians and Surgeons has not such a direct relation to Columbia College. In the light of prospective endowment, the more the pity. Columbia College is one of the wealthiest educational organizations in the country, and is abundantly able to endow every department of which it may assume legitimate control. The so-called medical department of Columbia College will doubtless be willing to accept endowments, but it does not care to give anything in return. Its peculiar form of government makes it virtually a distinct institution, a close corporation, managed entirely in the interests of its particular faculty. Its board of trustees is as independent of that of Columbia College as it possibly can be. The persistency with which the medical council maintains its so-called individual rights may possibly explain the reason why Columbia College has turned such a deaf ear to its solicitations for the required pecuniary aid. This is certainly a legitimate conclusion in the face of the facts before us.

The Bellevue Hospital Medical College is another institution for which an endowment would not be declined. At present it has no parent, but if it should become a member of the university family of Princeton, its chances of liberal endowment would be reasonably good. We are so well convinced that the best hopes of endowment of our medical schools centre in the plans of union which we propose, that we have no hesitation in recommending them.

We believe that there will be, before many years, one or more medical institutions in this city which will be properly endowed. At present the College of Physicians and Surgeons appears to have the best chance for the consummation of such a desirable result, provided it does not too stubbornly cling to its foolish individuality. In case it continues, however, in its present attitude, there is a possibility that Columbia College will act independently, by founding a medical department of its own, and under the circumstances she should not long delay her opportunity.

The argument that a well-established medical school, by yielding its government to the central council of a university, might suffer from the appointment of irregular and obnoxious persons to medical professorships, is one which certainly deserves consideration. But, in the light of present experiences, this argument has a force which is more apparent than real. It would be directly against the interests of any university to pursue such a course. Its legitimate aim, from first to last, would be to popularize its medical department with the profession, and the giving of the medical department a voice in professorial appointments would, irrespective of any other consideration, be one of simple policy. The University Medical College has had no trouble in such appointments, and is not likely to have. All questions concerning the competency and availability of the professors in her medical department are settled entirely by the medical faculty. We can hardly conceive the probability of any central council interfering with such a prerogative. If there is shown any disposition so to do there would be the best of reasons for dissolving allegiance to the parent institution. But, as we before intimated, such a contingency is not very likely to occur. It should not certainly of itself be a sufficient excuse on the part of any medical faculty for not making a legitimate effort to effect a proper understanding.

MEDICAL LEGISLATION.

The bill published in another column, referring to the practice of medicine in this State, deserves some attention. On the whole, the bill is reasonable in most of its provisions, and, if the latter can be faithfully and consistently carried out, we shall have solved some of the problems connected with this system of legislation. It is safe enough to rely upon the judgment and capabilities of the different chartered medical societies in settling the question regarding the qualifications which should entitle suspicious individuals to practise medicine; but it is hardly fair for the State to throw the onus of prosecution upon these societies. It is as much in the interest of the State as in the interest of the profession to check the growth of quackery, and, while it is perfectly right for one to help the other in a good work, it strikes us that we have more than our share, more than the authorities have a right to ask from simple citizens. The Board of Censors of this county has done a good deal of gratuitous work in this direction during the past year; but, under the circumstances of time and expense in securing convictions, the office is, on the whole, thankless and unprofitable. How to overcome this difficulty is still an open question, one which we confess our inability to answer. But we are far from trammelling the good intentions of reformers or narrowing the sphere of men who are willing to work for the good of the work itself. We are willing to make the most of what we have or expect to obtain.

On the other hand, another dilemma presents itself in the new bill, and that is the payment of fines to the informers. This of itself will be apt to raise the plea, on the part of the defendants to any action, of interested motives on the part of the plaintiffs, always a very strong plea when it can be at all sustained. But, as we have before intimated, these are some of the problems of medical legislation which only time and experience may be able to solve.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Jan. 24, 1877.

Dr. E. G. Janeway, President, in the Chair.

Dr. Finnell presented some gall-stones removed from the body of one of three lunatics who died suddenly on Blackwell's Island under suspicious circumstances. There was nothing peculiar in the specimens, and they were ostensibly exhibited for the purpose of starting a discussion as to the cause of death in those cases.

Dr. Janeway, by invitation, made some remarks concerning the suspicion of poisoning by picrotoxin, but inasmuch as the inquest was not yet completed, he did not desire that they should go on record.

FIBRINOUS DEGENERATION OF LUNG TISSUE.

Dr. Finnell also presented a specimen of lung removed from a fireman, who had died suddenly from hæmoptysis. For the past two years, the patient, who was under the care of Dr. Patrick Clark, and was a stout and hearty looking man, had suffered from occasional attacks of hæmoptysis, cough, and other objective signs of pulmonary tuberculosis. One night, on rising suddenly to respond to a fire alarm, the patient coughed up about a quart of blood, and then expired. During his sickness he had been seen by a number of physicians, among whom were Drs. Alonzo Clark, Briddon, Westcott, and Ives. There had been such a difference of opinion regarding the precise nature of the disease, that an autopsy was held.

On removing the lungs there was a total absence of tuberculous deposit, but in its stead a chronic fibroid induration of the lung tissue similar to that observed in the case of the late Dr. Thebaud. Besides this the bronchial tubes were more or less filled with fibrinous deposits. The right lung was adherent from apex to base, the pleural cavity being of course obliterated. The other organs were healthy.

Dr. Briddon stated that when he saw the patient there were no marked physical signs, but merely a grazing sound of old pleurisy and a few coarse râles on the right side. The pulse was 120, respiration 30–40, and some dyspnœa. The general history was that of phthisis of the non-tubercular variety.

Dr. Flint remarked that the absence of physical signs was in a measure accounted for by the condition of the bronchial tubes.

CHANCROIDAL ULCERATION OF THE COLON, SIGMOID FLEXURE AND RECTUM, AND STRICTURE OF THE RECTUM TREATED BY LUMBAR COLOTOMY.

Dr. Horatio Bridge presented a specimen, consisting of parts of the large bowel taken from a patient who died at Bellevue Hospital, January 10, 1877, of Bright's disease, in the wards of Dr. Stephen Smith, by whose courtesy he was enabled to present the same to the Pathological Society.

The mucous membrane of the anus and of the rectum, about as high as four inches above the internal sphincter, is entirely deficient. About the anus are numerous pit-like depressions, which mark the seat of former ulcerations. At the part corresponding to the top of the internal sphincter, where in life existed a marked stricture, the substitution of fibrous tissue for mucous membrane is most marked, but the calibre of the bowel at this point seems nearly, if not quite, normal. Above this for about three inches, the interior surface of the rectum is mammillated, rough, and harsh.

The parietes of the rectum are greatly thickened by the interposition of fibrous tissue and by hypertrophy of the muscular coats. In the sigmoid flexure and lower part of the descending colon are two ulcerations about an inch in diameter, nearly round in shape, penetrating through the mucous membrane with soft base and edges. Both in the sigmoid flexure and in the descending colon are clearly marked, star-shaped, and linea cicatrices, both large and small. One of these cicatrices, at about the middle point of the descending colon, has perceptibly diminished the calibre of the bowel by contraction.

In the cæcum and ascending colon neither ulcerations nor cicatrices are found. There is nothing remarkable about the artificial anus, with the exception of a protrusion of the mucous membrane and a superficial ulceration of the same. The transverse colon was not removed.

That the case may be better appreciated, I subjoin a brief abstract of a paper which I read November 9th, 1875, before the New York Dermatological Society, and which was published in the *Archives of Dermatology*, January, 1876.

"In the spring of 1874, while on duty as visiting physician to the House of Mercy, I had under my care a patient suffering with extensive rectal disease. The case has continued under my care, and illustrates some of the important points in the history and treatment of venereal ulceration and stricture of the rectum.

"The patient, Annie F. M——, is 38 years of age. She inherited a good constitution, and until within five years enjoyed excellent health. About five years ago she contracted venereal disease. Two large, profusely suppurating, painful sores appeared in the vagina a day or two after exposure; were pronounced chancres and cauterized; two weeks later they were healed. One month later she complained of an affection of the rectum, characterized by protrusion of mucous membrane from the anus, of pain in that region on sitting and at stool, when loss of blood occurred. These symptoms continued for about a year without treatment, but the patient was not confined to her bed, nor prevented from leading the life of a woman of the town.

"In February, 1874, I first saw the patient, and at that time her condition was as follows: About the anus were a number of flat, pigmented, nipple-like, fleshy protuberances; at the edge of the anus, extending up into the same, were four or five deep fissures, which on dilatation of the sphincter were converted into large non-indurated ulcerations, with deep, dusky red surface, showing no indication of a reparative process. An inch above the anus the mucous membrane was wholly wanting, and in its place a continuously ulcerated, freely suppurating, grayish surface. At the top of the internal sphincter ani was a stricture about $\frac{3}{4}$ inch in diameter. The patient was markedly reduced in flesh and strength, and suffering greatly from pain referred to regions corresponding to the rectum, sigmoid flexure, and descending colon. She complained of alternating constipation and diarrhœa. From time to time, at intervals of from one to two weeks, there occurred elevation of pulse and temperature, accompanied by increased pain and tenderness in the supra-pubic, left iliac, and lumbar regions, and this continuing for three or four days, subsides with the discharge per anus of a large amount of pus tinged with blood.

"No history of syphilis could be obtained. The

patient had already undergone anti-syphilitic treatment, and subsequently, under my own care, was brought fully under the influence of mercury and iodide of potassium, without improvement in the ano-rectal disease. Various astringent and disinfecting injections were persistingly used by my predecessor and myself without satisfactory results. Dilatation of the sphincter was thrice resorted to without good result. The diet was for weeks carefully regulated with the view to reduce to a minimum irritation from the passage of waste matter, without satisfactory results.

"On the 15th of July, 1874, lumbar colotomy was performed with the aid and advice of Drs. Bumstead and Mason, in the presence of Drs. Humphries, Tucker, Watts, Lefferts, and Bronson. The operation proved successful. The fæces were passed almost exclusively by the artificial anus; the abdominal pains, previously so severe, ceased almost entirely. The periodical fever and discharge of pus, before so remarkable, ceased entirely. The ulcerations in the rectum took on a healthy condition, and gradually healed.

"A year subsequent to the operation the condition of the patient was as follows: The fissures at the margin of the anus had entirely healed; at the top of the internal sphincter ani was a valvular stricture, which did not permit the passage of the forefinger. No signs or symptoms of ulceration above the stricture could be made out. The injections passed through the artificial anus by the patient herself were discharged at the natural anus free from admixture with pus. The general health of the patient was so good that she was enabled to be up and about, and to engage in light work.

"Subsequently, until the time of her death, the patient was several times obliged to resort to different hospitals for treatment, in consequence of excesses in drink.

"The case, illustrated as it is by the post-mortem evidences of the cure of chancroidal ulcerations, seems of value in showing the effect of lumbar colotomy, to which, as the history clearly shows, the cure was due, after other means had been faithfully tried without success."

Dr. Briddon referred to a case in point. It first came under his observation six months ago. The stricture was annular in character and tight. Dilatation was resorted to, but without avail; rectotomy was performed, and finally, six weeks ago, lumbo-colotomy was tried. Four weeks subsequent to the latter operation he had occasion to examine the patient on account of the presence of rectal pain, when he was surprised to find the stricture almost entirely gone.

Dr. Janeway stated that cases not infrequently occurred, which during life presented tight strictures, but in which, at the autopsy, it was very difficult to find them. This was accounted for in part by the absence of reflex muscular contraction, and in part from the destruction of the peri-rectal tissue during the necessary dissection for the removal of the gut. In Dr. Bridge's case, he was inclined to think that the ulceration above the stricture was due to the irritating presence of accumulated fæces rather than to chancroid.

Dr. Janeway lastly exhibited a specimen of empyema, showing the influence of adhesions in limiting the level of the fluid, and also illustrating the fact that pneumo-thorax may result from decomposition of the effusions in the pleural cavity.

The Society went into Executive session.

Dr. Barnes, of London, has been elected Associate Fellow of the College of Physicians of Philadelphia.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting, February 16, 1877.

Dr. Charles M. Allin, President, in the Chair.

THE VENEREAL ULCER, OR CHANCROID.

Dr. F. N. Otis read an interesting paper upon the above subject, of which the following is an abstract: The venereal ulcer, commonly called chancroid, was an acute contagious ulceration recognized as resulting from venereal contact. It was a purely local disease, and possessed characteristics which entitled it to be regarded as the highest type of acute ulcerative action. It commonly resulted from the inoculation of the purulent secretion of an ulcer having a similar character. Such purulent secretion, applied to sound integument or mucous membrane, was capable of effecting a solution of continuity, and of communicating to the sore at once its destructive and contagious properties. More commonly the chancroid was established upon an abrasion of the skin or mucous membrane in the act of coition. The secretion of the chancroid applied to an abrasion, congestion, inflammation, suppuration, and more or less rapid destruction of tissue followed in quick succession, and an ulcer was formed, sharply defined, with ragged edges, pultaceous floor, and secreting pus freely. The chancroid was seldom single, and occurring under circumstances of good general health, cleanliness, and proper living, it was usually self-limited, and finally terminated in a scar such as was left after an ordinary burn. The secretion, from first to last, was purulent and inoculable, and the sore was capable of being reproduced as readily upon the person bearing it, as upon one free from the disease; but when thus artificially reproduced, it lost, to a certain extent, its contagious property in each successive inoculation, until at last the secretion was no longer inoculable. The tendency of the disease, therefore, under favorable conditions, was towards recovery. When, however, it was attended by unfavorable conditions, such as irregular life, filth, venereal and alcoholic excess, a depraved constitution, etc., the venereal ulcer assumed its most vicious type. It might then assume a high grade of inflammation and become *phagedenic*, or, in other and rarer instances, it might assume a sluggish type, known as the *serpiginous*, and pertistently resist every mode of treatment for years. The extension of the chancroidal action might take place through the medium of the lymphatics and give rise to what was known as the chancroidal bubo. The contents of a bubonic abscess possessed all the peculiar properties of the pus from the original ulcer, and the open bubo took on the appearance of the typical chancroid. The chancroid, in its early stages, was easily controlled by proper remedial measures. The application of any caustic, sufficient to destroy the affected tissue, sufficed to change the venereal into a simple ulcer, and recovery followed without farther treatment than such simple sores required.

In addition to the conditions mentioned as determining the severer forms of venereal ulcer, it was also to be recognized that the lesion present partook, in a great degree, of the activity, whether greater or less, which characterized the lesion from which it was derived. We therefore met with every grade, from the simple excoriation to the sharply defined and most active ulcer. Hence all cases did not require the energetic treatment necessary to arrest the typical venereal ulcer, or chancroid. The milder varieties re-

quired only mild measures, and simple antiseptic, sedative and astringent remedies might be sufficient to effect a rapid cure.

With regard to the

HISTORY OF CHANCROID

it was said to be conceded to be of ancient origin—even to antedate the advent of syphilis, which had been claimed in ancient Chinese and Asiatic records, and to have existed between two and three thousand years before the Christian era. Notwithstanding its early recognition, shortly after the introduction of syphilis into Europe, in 1494, it became confounded with that disease. Its purely local character was lost sight of, and it was subjected to constitutional treatment as a form of syphilis. From the time the confusion of the venereal ulcer and syphilis became complete, all the contagious venereal diseases, gonorrhœa, chancroid, or venereal ulcer, and syphilis, were practically regarded as identical—requiring the same constitutional treatment. For more than two hundred years forward it was supposed that constitutional syphilis followed gonorrhœa and chancroid, and hence such patients were habitually mercurialized, but it finally became known that it was only the ulcer with indurated base and edge that was almost invariably followed by general syphilitic phenomena. John Hunter was the first publicly to recognize the value of the induration, characteristic of the venereal sore, which was followed by constitutional syphilis, thus making the first step towards restoring to the different venereal disorders their distinctive individuality. Hunter, however, was led into error, and taught that, while the local manifestations of venereal diseases were different their source of origin was identical, and that the variations depended upon some peculiar condition or idiosyncracy of the individual. In 1798 Benjamin Bell claimed a simple origin for gonorrhœa, and in 1836 Ricord, of Paris, by a series of experiments and observations, eliminated it from among the manifestations of syphilis. Ricord, however, accepted the view of Hunter, and regarded the hard and soft chancre as identical in origin, but made different by individual idiosyncracies. Bassereau, of Paris, one of Ricord's pupils, in 1852, demonstrated that in the soft local ulcer and the indurated infecting chancre, two distinct diseases existed. His observations were made by confrontation; that is, by comparison of individuals, affected by venereal disease, with those from whom the disease had been acquired, and similar observations were made by Clerc, Diday, Rollet, and Fournier in 1856. In 1857 Fournier and Caby, directed by Ricord, proved that, in all cases of chancroid, the type of the ulcer remained unchanged in passing from one individual to another.

M. Clerc, although accepting and confirming the observations above alluded to, claimed to have demonstrated that the chancroid was the product of an inoculation of the syphilitic virus upon persons then or previously affected with syphilis, thus asserting a unity of origin for the two diseases. The same observer also claimed that, although as a rule the chancroid thus originated, transmitted only chancroid, yet on being inoculated upon a healthy person, it was capable of reverting to its original type and of communicating syphilis.

Rollet and others, on the contrary, held that the chancroid, the soft local sore, and the chancre, the initial lesion of syphilis, were separate and distinct diseases, and had their origin in separate and distinct influences. Thus the two schools, the unicists and the dualists, were initiated. Lee, of London, Böck, of Christiania, and others succeeded in producing the typical chancroid upon persons syphilitic and non-syphilitic by inoculation of pus from an irritated syphilitic chancre. The degree of irritation required was that sufficient to produce free purulent secretion, and such sores were inoculable in successive generations upon persons quite free from syphilitic taint, and progressed in all respects like the ordinary venereal chancroid. Next it was found that when the superinduced irritation subsided, the secretion was no longer purulent; it was no longer auto-inoculable. It was concluded, therefore, that the property of inoculability or contagion depended upon a peculiar action resulting from the persistent irritation of an already diseased surface. The fact that such a sore could be established upon persons free from syphilitic antecedents, and not be followed by constitutional syphilis, demonstrated that it did not necessarily depend upon the syphilitic principle. Then came a series of experiments made by Pick, Koebner, Kaposi, and others, to ascertain the effect of inoculations of pus from simple lesions on persons free from syphilitic taint. The result had been formulated by Kaposi as follows: "Affections in non-syphilitic persons which are of slight virulence, and the secretions of which are not inoculable, can be made to produce an inoculable secretion by the application of an irritant." Reference was also made to the paper read by Dr. Bumstead before the Centennial Congress, in which was reported the case of Dr. Wigglesworth, of Boston, who in 1866, while in somewhat impaired health, inoculated himself with the pus from a simple acne pustule. Three generations of ulcers were established, and left as many distinct cicatrices. The experiment was under the personal observation of Prof. Zeissl, of Vienna. Reference was further made to the writings and experiments of Bäumler, John Morgan, and Vidal. Personal observations had shown Dr. Otis that the muco-purulent secretion from a non-specific nasal catarrh would sometimes produce excoriation of sound cuticle; that contact with secretions from non-specific leucorrhœas would sometimes promptly cause pustular eruptions upon the preputial mucous membrane, more or less rapid in development, and progressing according to the degree of the acridity of the fluid causing them—in some instances scarcely more than sero-purulent vesicles, in others so vicious that their development and progress did not differ appreciably from the typical chancroid. Reference was then made to several illustrative cases.

From all that had been adduced it seemed to Dr. Otis that it must be conceded the quality of pus was variable, and varied according to the circumstances under which it was produced, and the condition of the person on whom it might be inoculated. A low condition of the general system, from any cause, predisposed the tissues to take an ulcerative action and to elevate the attendant purulent secretion to a point of contagiousness. When, therefore, it came to be considered that the most frequent habitat of the venereal ulcer or chancroid was in localities where venereal excess and every kind of debauchery ran rampant; when to that was added the potent elements, syphilis, scrofula, filth, and irregular life, and also that chancroid was by far the most frequent, as compared with syphilis, among the debased and dissolute, the conclusion was regarded as inevitable that chancroid was of necessity a self-engendered disease, possessing no *specific* virus, but acquiring its power for destruction and contagion through various diseased conditions, or through the reckless stimulation and vitiation of benign natural processes. The distinction between

chancroid and the initial lesion of syphilis, at the outset, was often impossible, and never possible unless the source of origin was known. The leading feature and characteristic of chancroid was a *necrosis*, that of the syphilitic lesion one of rapid *proliferation*. The latter was a *builder* of tissue, the former a *destroyer*. The only method of determining whether a given chancroid or other lesion was to be followed by constitutional syphilis (unless its source was known) was to wait at least one full month after the exposure, even though during that time the suspected lesion—possessing all the characteristics of the typical chancroid—had fully healed. The frequent association of chancroid with syphilis would never lead to mistaken identity if it was borne in mind that syphilis was always, in all its manifestations, the result of a process of *proliferation*, of exaggerated growth. The only product of syphilis, from the initial lesion to the growing tumor, was an excessive accumulation of tissue-building cells. Chancroid, on the other hand, from its inception to its cicatrization, was a process of *destruction* of tissue. It could be claimed, therefore, that syphilis and chancroid were always and only in relation to each other as life to death—each the highest type of its own peculiar action.

The paper being open to discussion—

Dr. F. R. Sturgis remarked with reference to the anti-inoculability of non-specific pustules, such as acne, ecthyma, etc., that the experiments mentioned in the paper had been made upon persons who, at the time, were the subjects of debility, and that it was probably the debilitated condition which favored the development of the peculiar ulcers obtained; whereas, with the inoculation of chancroidal ulcers, it made no difference, so far as debility was concerned. And it was only after repeated inoculations with the same virus had been made that there was a seeming immunity obtained; but they could be reproduced with new virus in fresh soil as well as on the person bearing them.

The inoculation for acne, ecthyma, herpes, etc., had never been successful, unless the person upon whom the inoculation had been made was in a condition of debility. To inoculate healthy persons and produce an ulcer, the pustule must first be irritated, thereby introducing a new element into the experiment.

Dr. Sturgis had inoculated both himself and the persons bearing the lesion, from croton-oil pustules, acne, scabies, and pemphigus, without the element of irritation being introduced, and on no occasion had the least effect been produced.

His experiments were performed upon those persons among whom they would be most likely to be successful, *i.e.*, hospital and dispensary cases, because they were surrounded by unfavorable conditions.

With regard to the statement made by Dr. Otis, that chancroid was probably not due to a special virus, but rather to unfavorable surrounding conditions, filth, excesses, irritation, etc., Dr. Sturgis believed that more evidence was required upon that point before it could be decided positively. Whether there was a real virus or not, we did not know what it was, and could, judging from its fruits, only say that it was some irritant which produced its peculiar effects.

Dr. Sturgis referred to a case mentioned by Dr. Otis in which the patient, not particularly strong, had been inoculated, with the probable production of a chancroid, and claimed that in such patients it was found that herpes would assume all the characteristics of a superficial chancroid, producing in the person a lesion carrying out all the semblance of a chancroid, except that it was believed, if herpetic, to be incapable of inoculation either on the bearer or another; and here he believed inoculation had not been practised.

From the appearance of the two lesions one could not tell whether he had to deal with a superficial chancroid or a herpetic vesicle; their semblance was such as to render it impossible to distinguish them. Dr. Sturgis believed that more light was required before it could be decided that acne pustules were inoculable in the same sense as chancroids.

Dr. Otis remarked that he wished to be understood as saying that sores on inoculation communicated like sores; that a sore having a low grade of inoculability communicated one having a like low grade of inoculability, if any at all; and that the chancroid in its typical state was a sore exposed to all the irritating influences which could be conceived of, and had thus been raised to its present degree of active virulence, but that it lost such activity by repeated inoculation.

It seemed to Dr. Otis that Dr. Sturgis had very happily supported him in the statement that sores which were engendered in weakly individuals produced on inoculation similar sores in persons also debilitated, while no effect was produced when the secretion of the same sores was inoculated on healthy persons. From that fact it became evident that the contagious property was, to a certain extent, dependent upon the condition of the individual affected, and that debility was *one* of the known factors in producing the inoculable property in purulent secretions. It was further claimed that vinous and venereal excess, uncleanliness, etc., were among the other factors which went to make up the degree of virulence that characterized any given local contagious venereal lesion.

If we were compelled to wait until all the exact conditions obtaining in the production of typical chancroid were present in our experiments, the subject, of necessity, must remain open forever.

We were obliged to judge by analogy and by comparison; it was impossible to have the exact conditions, but it was sufficient that we were able to recognize the fact that there was a great variation in the virulence of such sores; and that the virulent sores continued to produce the same kind because the influences were such as to raise it to the highest point of activity. There was an almost fixed condition in each chancroid, which was propagated to the next sore, perhaps, however, somewhat diminished in virulence. There was almost as much reason to believe in such difference in venereal sores as, for example, in the differences in the series of chemical compounds from nitrous oxide, laughing-gas, to nitric acid; typical chancroid, in the variations, being made by the addition of one part of oxygen to each lower member of the series. So it seemed to Dr. Otis that there were venereal ulcers the secretion from which was bland, irritating scarcely any, if at all; but the greater the proportion of excitement thrown in through excesses, etc., the more active they became, until finally the activity was raised to such a height as to cause a rapid destruction of tissue.

Dr. Sturgis remarked with regard to the question of irritation that the sore usually produced the same characteristics when carried to those who were perfectly free from disease. Take, for example, a pustule of acne and the initial lesion of syphilis, and, without irritation, make an anti-inoculable sore for both. Chancroids were not produced in either case. Carry to fresh subject from the acne pustule, and an abortive pustule was produced; but from the initial lesion of syphilis, syphilis was obtained.

It was in the matter which was carried, and not in

the subjects themselves, that the variation in results was produced.

When the inoculative was carried to the first subject, without irritating the pustule of acne, nothing was obtained; but with the primary lesion of syphilis, if irritated, a local lesion might be produced by inoculating the bearer of the syphilide, but was it a chancroid when carried to some one else?

Dr. Fox coincided with Dr. Otis in the opinion that a chancroid might be of an exceedingly mild type, or vary all the way to the typical inflammatory sore; that by means of local irritation, uncleanliness, excesses, etc., it might be raised from any grade to a sore in the highest degree inflammatory; and that in that form it might be transmitted to another person.

Dr. Dupuy remarked that success in obtaining sores by inoculation depended very much upon the age of the pus employed. Inoculation might be made at one time without success, and at another successfully, according as the pus was younger or older. It had been ascertained that the real virus consisted of solid particles, and that when these were present the pus was capable of producing a sore by inoculation, and when they were absent inoculation was impossible.

After a brief discussion touching the history of syphilis, by Drs. J. C. Peters, Sturgis, Dupuy, and Otis, the Association adjourned.

Obituary.

GURDON BUCK, M.D.,

NEW YORK.

The painful anxiety concerning the health of this distinguished surgeon has at last culminated in his death. This sad event occurred on the morning of March 6, ending a long and useful career. He was born in this city May 4, 1807. After a very careful and thorough preliminary education, his parents destined him for mercantile pursuits, in which for a time he became engaged in this city. Such not being congenial to his tastes, and having an ardent desire to study medicine, he afterwards became a student in the office of the late Dr. Thomas Cock, and was formally matriculated in the College of Physicians and Surgeons, graduating from that institution in the spring of 1830. Immediately after this he entered the medical division of New York Hospital, passing through the usual grades of interneship.

Naturally ambitious to improve every opportunity for study and practice, he became one of the attending physicians to the N. Y. Dispensary, then in the infancy of its usefulness. While serving in that capacity an accidental circumstance determined his future course. A child was brought to him from Westchester, suffering with stone in the bladder. The desire to relieve the sufferer prompted a thorough study of the case. So interested did young Buck become in this study that he determined to be a surgeon rather than a physician. Having made up his mind upon the subject, he appreciated his opportunity, and operated upon the patient. From that time a new field was opened before him—a field to the successful cultivation of which he devoted his best energies.

In 1835, with a desire to take advantage of extra facilities for study abroad, he left this country in a sailing vessel, dividing up an absence of two years in the medical centres of France, Austria, and Germany. On his return to New York, in 1837, he was appointed Attending Surgeon to the New York Hospital, which position he held up to the time of his death. On the death of Kearney Rogers he was made Attending Surgeon of the New York Eye and Ear Infirmary, which position he occupied for nine years. When the St. Luke's Hospital, of this city, was being founded, he was the trusted adviser of the managing board, and the subsequent perfect administration of this noble charity has been in no small degree due to his individual exertions. After its organization he was appointed Attending Surgeon, the duties of which position he continued to discharge until 1868, when he resigned to accept a similar connection with the Presbyterian Hospital. He remained in active connection with this institution until a few months ago, when his rapidly failing health rendered him unfit for duty.

As a surgeon Dr. Buck was remarkable for boldness in operating and for thoroughness of detail in after-treatment. His patient study of his cases was one of his peculiar traits. To cases of fractures he was particularly attentive, spending not unfrequently the greater part of the day in the wards of the New York Hospital in dressing them. As a result of such painstaking he was enabled to revolutionize the prevailing system of treatment. To his personal study and exertions were due, more, perhaps, than anything else, the enviable reputation which this hospital so long maintained for the brilliant results of this class of injuries. The improvements which he made in the then existing apparatus are matters of surgical history. His method of treating fractures of the thigh by the weight and pulley was at once recognized by surgeons throughout the civilized world as the establishment of an original principle of the utmost value.

Dr. Buck was not only a bold, but an original operator. The various capital operations which are described in the periodical medical literature of the past thirty-five years abundantly prove the latter statement. Among these, what is now known as Buck's operation for œdema of the glottis holds a deservedly high rank. But in no department did he gain more laurels than in autoplastic surgery. His devotion to this branch, during the latter part of his life, amounted to a passion, and his marvellous successes roused in him an enthusiasm which mocked the increasing infirmities of his age and his rapidly declining health. His work on "*Contributions to Reparative Surgery*," issued only within the last year, fully embodies his remarkable experience, and may be looked upon as the crowning effort of a most notable and distinguished career.

During a second visit to Europe in 1836, Dr. Buck was married to Miss Henrietta E. Wolff, of Geneva, Switzerland, who survives him. He also leaves three sons and two daughters. Two of the sons, Drs. Albert H. and Francis D. Buck, are physicians, and the third, Gurdon S. Buck, is a lawyer—all being engaged in practice in this city.

Dr. Buck was a Fellow of the Academy of Medicine from its organization, and was once its vice-president. He was also a member of the New York Pathological Society, of which he was at one time president, and of the County Medical Society, the State Medical Society, and the American Medical Association. For varying periods in the last thirty years he had been a trustee of the College of Physicians and Surgeons, the New York Eye and Ear Infirmary, the New York Dispensary, and the New York Ophthalmic and Aural Institute.

For the past year or more his health began sensibly to decline, and grave symptoms appeared, which were for the most part referred to kidney trouble. Finally the symptoms of uræmic poisoning became

more and more marked, until he sank into coma, in which state he quietly passed away.

He was faithfully and lovingly attended to the last by his trusted medical friends and advisers, Drs. James R. Leaming and Alonzo Clark.

As a man, Dr. Buck was noted for his sterling integrity of character, his high sense of professional honor, his consistent Christianity, his charity to the poor, and his quiet devotion to his family. Can more of good be said of any one?

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 25 to March 3, 1877.

BENTLEY, E., Asst. Surgeon. To report to the commanding officer of the 16th Infantry, Custom House, New Orleans, for temporary duty with that regiment. S. O. 31, Dept. of the Gulf, Feb. 20, 1877.

PAULDING, H. O., Asst. Surgeon. Assigned to duty with Battalion 2d Cavalry, in the field. S. O. 24, C. S., Dept. of Dakota.

BROWN, P. R., Asst. Surgeon. Assigned to duty with Battalion 2d Cavalry, in the field. S. O. 24, C. S., Dept. of Dakota.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending March 3, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Feb. 24.....	1	6	82	4	3	45	0
March 3.....	0	5	82	3	7	48	0

THE PRACTICE OF MEDICINE IN THE STATE OF NEW YORK.—*Assembly* 32, January 3, 1877. Introduced by MR. MITCHELL, read twice, and referred to the Committee on Public Health, and ordered printed.

AN ACT to regulate the practice of medicine in the State of New York.

SEC. 1. Every person practising medicine or surgery in the State of New York shall record his name in full, the place of his residence, the name of the college or society granting him a diploma or license, together with the date of such diploma or license, in a book kept for said purpose by the Secretary of the Board of Health of the city of New York, where such practitioner resides in said city; and where such person so practising is not a resident of said city, he shall record his name in full, the place of his residence, the name of the college or society granting him a diploma or license, together with the date of said diploma or license, in a book kept for said purpose by the clerk of the county in which such person so practising resides, and a fee of twenty-five cents shall be paid to the Secretary of the Board of Health of the city of New York for each name entered in said book kept by him, by the person entering said name, and a like fee to the clerk of the county for each name entered in said book, kept by him, by the person entering said name: and the Secretary of the Board of Health of the City of New York and the clerk of each county in the State are required to keep each a book for the entry of names as herein provided, and such books are to be kept open for the inspection of all who desire to examine them during office hours.

§ 2. Every person practising medicine or surgery in the State of New York, excepting licentiates of a chartered medical society or graduates of a chartered school, is required to obtain a certificate from the Board of Censors of some one of the several State, county, or district chartered medical societies, which certificate shall set forth that said Board of Censors have found the person to whom it was issued qualified to practise all the branches of the medical art.

§ 3. The Secretary of the Board of Censors of any one of the chartered medical societies mentioned aforesaid, may summon, personally or by mail, all persons practising medicine or surgery, excepting licentiates of a chartered medical society or graduates of a chartered school, and excepting those who have certificates issued to them in accordance with section two of this act, to appear before the Board of Censors, of which he is Secretary, at a certain time and place within thirty days after the receipt by such person of such summons, and undergo an examination as to their qualifications to practise medicine or surgery.

§ 4. It is hereby declared a misdemeanor for any person to practise medicine or surgery in this State unless authorized to do so by a diploma from a chartered school, or a license from a chartered medical society, or a certificate issued in accordance with section two of this act, or to practise medicine or surgery under a diploma, license, or certificate illegally or fraudently obtained, and any person found guilty of such misdemeanor shall, for the first offence, be fined not less than two hundred dollars nor more than three hundred dollars, and shall be imprisoned until such fine be paid, and for any subsequent offence not less than four hundred dollars nor more than six hundred dollars, and shall be imprisoned until such fine be paid, subject, however, in both cases to the terms of limitation prescribed by the provisions of chapter sixty-one of the laws of eighteen hundred and seventy-six. And all such fines shall be paid to the treasurer of the medical society the president of which makes the complaint.

§ 5. Proceedings under section four of this act shall be instituted by the president of some one of the medical societies mentioned in this act, by his written complaint, sworn to by him before a police justice or notary public.

§ 6. The act of May 11th, 1874, regulating the practice of medicine and surgery in the State of New York, and all acts and parts of acts inconsistent or in any wise conflicting with the provisions of this act, are hereby repealed.

§ 7. This act shall take effect immediately.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS.—The annual dinner of the Alumni Association of the College of Physicians and Surgeons, given on the evening of March 2d at Delmonico's, was largely attended, and proved a thoroughly enjoyable affair. The dinner was held in the large dining-parlor, and presided over by Prof. William H. Draper, the President of the Association. After the elaborate *menu* had been disposed of, the following toasts were responded to respectively as follows: Our Alma Mater, by Prof. J. C. Dalton; Columbia College, by Prof. Chandler; the Clerical Profession, by Dr. John Cotton Smith; the Legal Profession, by Hon. Joseph H. Choate; our Sister Colleges, by Prof. D. B. St. John Roosa, of the Uni-

versity Medical College, and by Prof. A. B. Crosby, of the Bellevue Hospital Medical College; concluding with a response by Prof. F. Delafield to "the Pet of the Alumni Association," the Endowment of a Pathological Chair.

College of Physicians and Surgeons.—The seventieth annual commencement of the College of Physicians and Surgeons Department of Columbia College occurred on the evening of March 1st, at Steinway Hall. Upon the platform were the Presidents of Columbia College and the College of Physicians and Surgeons, the Faculty of both institutions, and a large number of prominent physicians. The exercises were opened by prayer by Rev. Dr. Sullivan H. Weston, after which degrees were conferred upon the graduates, numbering 118, the Hippocratic oath being at the same time conferred upon them by Prof. F. A. P. Barnard. At the conclusion of this ceremony the graduates were addressed by President Alonzo Clark, who reviewed the progress of medical science from the earliest ages to the present time. Diplomas of honor were next awarded to Henry L. Elsner, William B. Goldsmith, William S. Halsted, Frank A. Langworthy, Daniel M. MacMartin, Charles N. Raymond, Thomas L. Stedman, John W. Sutton, and L. D. Woodbridge, special prizes of $100, $50, and $25, for special competitive examination being awarded as follows: First prize, $100, to William S. Halsted; second prize, $50, to Thomas L. Stedman; third prize, $25, to Henry L. Elsner; and another, of same amount, to John W. Sutton, both gentlemen having tied in their competitive examination. The special prize of $250, offered by the Alumni of the college to the author of the best essay, was next awarded to Dr. George B. Fowler, a graduate of the class of 1871. The valedictory address was delivered by George A. Edwards, M.D., who emphasized the importance and responsibility of the physician's calling, and urged his classmates to enter upon their professional career with the resolution of adding something of value to the medical science of their day, and not merely of taking advantage of what their predecessors had left them. The speaker was followed by Bishop A. Cleveland Coxe, who delivered a closing address to the graduates, in which he considered at length the obligations of physicians as professional men, and their duty to society. At the conclusion of the address the audience were dismissed with the benediction.

The Condition of the Municipal Hospitals.—The fifth annual meeting of the State Charities Aid Association was held on the afternoon of March 1, in Municipal Hall, No. 67 Madison Avenue. There was a large attendance, principally of ladies. Mr. Howard Potter, in the absence of the President, acted as Chairman. An election for officers for the ensuing year resulted as follows: President, Miss Louisa Lee Schuyler; First Vice-President, Howard Potter; Second Vice-President, Mrs. William B. Rice; Third Vice-President, Frederick Law Olmstead; Fourth Vice-President, Theodore Roosevelt; Fifth Vice-President, Mrs. C. R. Lowell; Treasurer, John Crosby Brown; Corresponding Secretary, Mrs. Joseph Hobson; Assistant Secretary, Mrs. S. E. Minton. The Treasurer's report showed the total receipts for the year to have been $2,687.90, and the expenditures $261.75, leaving a balance on hand of $2,426.15. Mr. Potter expressed the hope that during the coming year the Association would more truly than it had previously done earn the title of a State society by enlarging the scope of its work. The reports were then read of the various committees of the Association. The most interesting of these was that of the Hospital Committee concerning Bellevue and other hospitals under the management of the Commissioners of Charities and Correction. The committee say:

"The administration of the public charities has properly nothing to do with politics, but the Department of Charities and Correction is merely a political machine. Not that the appointments are all bad; some are very good; but the Commissioners are hampered by political considerations which ought not to influence them. For example, the committee asked for the removal of a certain incompetent official, and were told that no one in the department was powerful enough to effect it. This was two years ago, and the incompetent person still retains the post. In respect to nursing, the public hospitals are in advance of the private hospitals of New York. The training-school at Bellevue has had exceptional advantages in the attention it has received from its Committee of Management. At Charity Hospital great progress has been made; the women are of a better class, and anxious to learn, but they should have a matron at their head responsible to the physicians for their work, and to the Chief of Staff for their discipline. At present the Chief of Staff is called upon to settle disputes among the women; his labors are arduous and discouraging, but, in spite of obstacles, he has effected many improvements. The heating and ventilation of Charity and Bellevue are notoriously bad. The State Charities Aid Association would have furnished a plan prepared by experts for a new ventilating and heating apparatus for the hospitals, but the Commissioners did not consult them, and offered the contract for putting one in at Bellevue to the lowest bidder. The work, now completed, is a total failure. The bad condition of the plumbing work aggravates the defects of the ventilation, the pipes are often out of order, and on January 20th thirty-two of the faucets were leaking. The ventilation at Charity Hospital is, to the senses, even worse. The foul air from the cellar, through the centre of which the main sewer passes, is heated and carried into the wards. The ventilating flues open into the attic, instead of being carried into the outer air. When the hospital was built it was intended that fans should be placed in the cellar, to supply fresh air, but they have never been introduced. The windows of the cellar are not kept open, because, it is said, it would increase the consumption of fuel to bring in fresh cold air to be heated. The committee urges the necessity of building maternity pavilions on Blackwell's Island, to relieve the overcrowding of Charity Hospital. A small lying-in hospital is much needed in the city, and the committee have urged the Governors of the Society of the New York Lying-in Asylum to open one. The Ninety-ninth Street Hospital, which is well cared for, is not required, since there are several large hospitals in the vicinity which would be glad to take the patients. The committee recommend that it be closed, and that the funds for its support be applied to a small lying-in hospital."

Bogus Diplomas.—Since our last issue we have had forwarded to us by hospital stewards more copies of the circular of the bogus diploma agent at Buffalo. It would seem that the agent in question has miscalculated the character of his customers. He deserves, however, in a business way, some credit for his enterprise, as from present indications every hospital steward of the army has been addressed upon the subject. Again we call the attention of the Erie County Medical Society to this shameful and barefaced swindle.

Original Communications.

PRACTICAL POINTS IN THE ELECTROLYTIC TREATMENT OF CYSTIC AND FIBROID TUMORS.*

By GEORGE M. BEARD, M.D.,

NEW YORK.

The department of electro-therapeutics that relates to the electrolytic treatment of tumors appears to increase rather than diminish in interest. The necessary difficulties that attend the introduction of a radically new mode of treatment, and one requiring special apparatus and experience, in a severe variety of disorders have, it is true, retarded, but have not entirely arrested, the popularization in the profession of electrolysis, or decomposition by means of electricity, either as a last resort, or, in some cases, as the first and best method in both benign and malignant tumors.

These difficulties and discouragements would, I am persuaded, be fewer if the true principles at the basis of this method of treatment were well understood by those who employ or recommend it. In treating tumors by electrolysis intelligently, it is needful to know both the laws of electro-physics in general and their application to the tissues of the body in particular. A knowledge of the nature of tumors, also, so far as we can claim to know their nature, certainly a familiarity with their clinical history, is not to be dispensed with.

In regard to the electrolytic treatment of malignant tumors, these conclusions are justified by experience up to the present date:

First. In all or nearly all cases the pain can be relieved, even in the latest stages.

This may be accomplished oftentimes by simple external galvanization without electrolysis.

Secondly. In a certain proportion of cases taken early, malignant growths may be temporarily or permanently arrested, so that patients are free from pain and from all severe annoyance, although the tumors are but little or not at all diminished in size.

A number of cases of this kind have been under my care, and some of them are yet under my observation.

One case in particular I recall, of a lady who, for thirteen years, has carried what is supposed to be a cancer in the breast, which five years ago seemed to be taking a new start; but external galvanization alone appeared to arrest the progress of the malady, and the patient is living to-day, although the tumor exists and is not at all diminished in size.

In another case of malignant cystic of the breast, electrolysis caused evacuation of the fluid and subsequent shrinkage of the tumor to about one-third of the original size, at which point it has remained for three years, causing, at the last accounts, no annoyance.

In cases like the above there is room for errors in diagnosis, and also the consideration that some tumors that prove to be malignant, even when not treated, are stationary for years, is to be noted. In the cases here referred to, however, there was no difference of judgment among the many surgeons who saw them, and in the latter case an operation was earnestly and unanimously advised.

Thirdly. Malignant cystics, like epithelioma, may be treated successfully, in many cases, by electrolysis of the base, the body of the tumor being neglected.

This method of treatment I have elsewhere described in detail, and only refer to it here as a measure that may be resorted to in cases where it is feasible, when electrolysis of the body of the tumor in the ordinary way does not accomplish what we wish.

My special purpose in this paper is, to speak of benign or non-malignant cystics and fibroids—that is, cystics or fibroids which, when once thoroughly removed by an operation, do not return—in their relation to electrolysis.

While tumors of this kind may occur in various parts of the body, they are particularly common in the ovaries and uterus; but the same general principles apply to the treatment whatever the locality may be.

The *first* practical point I would enforce is, that the object of using electrolysis in cystic tumors is not the decomposition of the fluid constituents, but the stimulation of the secreting surface so as to prevent further secretion and aid absorption.

The mere evacuation of the contents of cysts in the ovaries, or in other parts, may be accomplished by tapping; but the thing needed is to prevent a refilling of the sac. In the electrolysis of cystics it sometimes happens that the fluid flows out where the negative needle is inserted during or directly after the operation; but this discharge of the contents, and consequent shrinkage of the tumor, is a temporary matter, unless the effect of the operation has been to prevent the morbid secreting process. The decomposition of the fluid contents by the action of the electricity may be brought about provided the current be sufficiently strong and the operation long enough to bring all the atoms under the influence of the current; indeed, the decomposition sometimes takes place so rapidly that the resulting gases cause swelling and tension of the sac, and the hydrogen and fluid flow out together in the track of the negative needle; but that process is an incident to the operation rather than the operation itself. In hydrocele, for example, which is a type of this kind of tumor, a radical cure is sometimes effected by electrolysis, even when scarcely any decomposition takes place. In a case of hydrocele in a child, I inserted the negative needle but for a moment, and then was obliged to withdraw it on account of the struggles of the patient, and the operation was deferred for another day. When the day arrived the patient was well. Many of the failures with electrolysis have been owing to misconception on this point. In operating on this class of tumors I pay little heed to the decomposition, but manipulate one of the needles, if possible, so that the inner secreting surface may be acted upon. The stimulation of the secreting surface in this way seems to have a two-fold effect—it prevents secretion and also causes absorption, both of which results are desirable.

A physician of Chicago, Dr. Peck, who makes much use of galvanic baths, wrote me several years ago that he had cured a case of incipient ovarian tumor by the bath alone, no needles having been used. This is by no means incredible; for in the warm bath the skin becomes so saturated with water that its conductivity to electricity is very greatly increased, and it is conceivable that the stimulus to the secreting surface thus obtained might be sufficient to cause the disappearance of a cystic tumor of moderate size. Yet further it has been shown that the mere puncture of tumors may be followed by their disappearance. Dr. C. L. Mitchell informs me that he has had an experience of this kind. In cases of this sort, occurring rarely and accidentally, however,

* Read before the N. Y. Medical Journal Association, Feb. 2, 1877.

there may be two sources of error—coincidence and mental influence. Tumors—not usually cystic or fibroid, however—sometimes disappear or diminish in size of themselves, or at least without any apparent cause. At one time I had under my care a patient with a very large fibroid tumor. Under electrolytic treatment, carried eventually to the point of suppuration, there was a considerable diminution in the size of the tumor, and very great relief of many of the accessory symptoms; but beyond a certain point nothing could be done. About one year after the treatment was suspended the tumor grew very much smaller of itself, while nothing was being done for it, and the patient has been much better ever since. One year ago I saw a lady who reported that she had at one time a tumor which prominent surgeons of Philadelphia, New York, and other cities pronounced to be ovarian, and an operation by electrolysis was urged. The woman was very ignorant and superstitious, and, declaring that she would "rather die a natural death than be killed by the doctors," went off to one who cured by the "laying on of hands" and other flummeries. The result was speedy and satisfactory; the tumor disappeared, and at the time I saw her she had been free from it for several years.

Facts and considerations of this kind should be borne in mind, since they aid us in explaining some, at least, of the inconsistencies of the results of experiments in this department.

A *second* practical point is, that the object of electrolysis of fibroids and the solid walls of cysts is not so much the direct and immediate destruction of tissue as the general modification of nutrition. This modification in nutrition is the result in part of the stimulating action of the current on the tissues, causing absorption, in part of the coagulation of the albumen, and in part very likely of the change in the innervation produced by the action of the currents on the nerves of the part.

It not unfrequently happens that goitres, for example, go down perceptibly after one or two electrolytic operations, in which there has been little or no destruction of tissue. In such cases a modification in the nutritive processes must take place not only near the points of insertion of the needles, but in all parts of the tumor, and very likely in parts that are not traversed by the currents at all, but are affected only indirectly, perhaps reflexly, through the nerves. Indeed, the best results of electrolytic treatment in cystics and fibroids are not due to the electrolysis at all, but to the action of the electricity without regard to electrolysis and independent of it. In the treatment of nævi, on the other hand, the chemical action of the current—electrolysis—is the one and only thing sought for.

A *third* practical point in the treatment of tumors of this class is, that batteries in which the elements are united in series, that is, for "tension," should be used rather than batteries in which the elements are arranged in the multiple arc, or the so-called "quantity" battery.

In electrolytic operations, as in all applications to the human body, great resistance is encountered, though very much less when the skin is punctured and the needles are near together than in applications on the surface with electrodes far apart. It follows from the law of Ohm, which is to electro-physics what gravitation is to astronomy, that in applications to the body—central and local galvanization, as well as in electrolysis proper—batteries in which the elements are arranged in series are required, since the external resistance must always be considerable; and against great external resistance large cells send but little more electricity than small cells.

When in electrolytic operations the needles are very near together, and in a warm saline fluid,* such as is sometimes found in cystic tumors, the resistance may be so slight that electrolysis may take place very rapidly with two or three large cells of a quantity or galvano-cautery battery. With Byrne's galvano-cautery battery, for example, electrolysis of a mixture of water and sulphuric acid goes on with violence when the electrodes are a fraction of an inch apart. But in the electrolytic treatment of cysts such powerful action is not needed, and if it were there is no occasion for the use of a quantity battery in order to obtain it. In the electrolysis of solid fibroids of the uterus there must always be a large amount of resistance, even when the needles are brought near together; for the tissues are hard and comparatively dry, and against resistance of this kind a number of large cells will send no more electricity than a number of small cells; for the reason which Ohm's law mathematically explains, that the potential electricity in the large cells—that is, the electricity which they are capable of generating—has no chance to become actual electricity; the resistance is so great that it cannot, so to speak, get out; it is consequently locked up in the atoms of the fluids and metals of which the battery is composed. On the other hand, before a moderate external resistance, such as is afforded by a piece of platinum wire introduced into the circuit—as is the case in galvano-cautery operations—the potential electricity of the large cells becomes actual electricity; it has a door of escape, and it does escape, and in passing through the resisting platinum wire it is degraded into heat.

Drs. Kimball and Cutter reported two or three years ago some experiments in the treatment of solid uterine fibroids by electrolysis, with a large-cell quantity battery, and large and long knives as electrodes. Their idea in using a battery of this kind was, I suppose, that more electricity could be sent through the tumor from large and powerful cells than from small ones of the same kind. This fallacy is a very common one, but, as has just been stated, it is disproved theoretically by Ohm's law, which has no exception, and also by experiment and practical experience.

The method adopted by Drs. Kimball and Cutter has been criticised in articles in the *Boston Medical and Surgical Journal* by my friends, Drs. Webber, of Boston, and Hutchinson, of Providence. Dr. Webber suggested that only heating effects could be obtained, and there would be no electrolysis at all when a large cell was connected with a solid fibroid in the method of Drs. Kimball and Cutter. This criticism is doubly incorrect. The heat developed against such resistance as a solid fibroid would be imperceptible. In order to convert electricity into heat, there must be only a moderate resistance comparatively, and it must be proportioned to the tension of the battery, that is, to its power of overcoming resistance. If the resistance be so great that the electricity cannot pass to any extent, very little heat is developed in the circuit. If the resistance is only moderate and not sufficient to prevent the passage of the electricity, as in platinum, which is a poor conductor compared with copper, but a good conductor compared with the body, then the

* In regard to the comparative conductibility of the human body and water, it may be stated that the warm saline fluids of the body as such, by themselves, conduct better than pure warm water outside of the body; but the body as constituted with solids and fluids is a much poorer conductor than warm water, and, indeed, conducts mainly through its saline fluids. The fluid contents of cystic tumors would probably conduct better than pure warm water.

electricity is developed, but is degraded into heat as it passes through.

In using a single large cell in operations with needles on solid fibroids, we do not get any heat, or only an amount that cannot be felt or easily measured; at any rate, no more heat than would be obtained under the same circumstances from a small cell.* Precisely so with the electrolytic action. A large cell, no matter how large, will send but a trifle more of electricity through a solid fibroid than a small cell; it has, therefore, no practical advantage in operations of that kind. It would send absolutely no more electricity through a solid tumor than a small cell, except for the fact that its internal resistance—that is, the resistance in the battery—is less. In the cases of Drs. Kimball and Cutter, therefore, no perceptible heating effects were produced, and scarcely any more electrolytic action than would have been obtained from a small cell. If any injurious or fatal effects have come from that procedure, they were due probably to the size of the knives that were employed as conductors, although it is conceivable that the operation may have been too protracted, considering that both poles were inside of the tumor, a method which is not generally advisable in cases of that kind.

A battery composed of a small number of cells of moderate size is, therefore, the one required in the electrolytic treatment of solid uterine fibroid, fibrocystic, and also ovarian tumors. I have already stated that the actual decomposition of tissue—the electrolysis—is really the least important fact in the *rationale* of the so-called electrolytic treatment of this class of tumors; that the great thing is the indirect modification of nutrition through the nerves. Accordingly, it is probable that a battery, in which the chemical action goes on very slowly and feebly—as in the Daniels cell and in its modifications, for example—and which would afford the stimulating action of the electricity with but slight electrolysis, would have some advantages. The cabinet battery which I described three years ago is furnished with cells of this kind—the Siemens-Halske modification of Daniels's—and it produces but slight electrolysis even where it causes a decided sensation. The suggestion is worth consideration, and it is certainly in the interests of caution that it be carried out in those cases where there is likelihood that harm may come from electrolysis.

Tumors of the class under consideration may be treated with the negative pole only, or the positive pole only, or with both poles. There is greater safety when only one pole is used, and of the two the positive is least likely to do harm, from the fact that the oxygen and acids which go to that pole make less disturbance than the hydrogen and alkalies that go to the negative pole. In many cases, however, the negative pole is preferable, and particularly when it is desired to produce a vigorous chemical action. In regard to the choice of poles much will depend on the size and locality of the tumor. Not only the chemical, but also the irritating or stimulant effects of the negative pole are more pronounced than those of the positive pole, and this fact is to be considered.

In regard to the length of the operation much depends on the strength of the current used. A very mild current will be borne much longer than a very strong current—in case no anæsthetics are used; and if the patient be anæsthetized will be less likely to do subsequent harm. In the majority of cases it is desirable to avoid suppuration, if possible; hence it is well to do too little rather than too much; to repeat the operation many times rather than overdo the treatment the first sitting.

A very important practical consideration—and one that has not been recognized, or, at least, not insisted on hitherto—is that the suppurating point, after electrolytic operations, varies greatly in different individuals, and in the same individual at different times. This fact cannot perhaps be mathematically proved by rigid comparison, but it is a general judgment that I form from observation of the behavior of cases. With some persons a very long electrolytic operation is followed only by slight local inflammation, that soon passes away, and is attended with little or no pain; with other persons, in certain depressed states of the system, suppuration may appear speedily after mild electrolysis. I have observed this difference in all the varieties of tumors, as well as in cystics and fibroids.*

The moral is that, in those cases where suppuration is not desired, it is well to be on the safe side, and use mild currents and short applications, as we cannot always tell beforehand in any case whether the suppurating point will or will not be easily reached.

Insulation of the needles is not indispensable, even in operations on ovarian cysts and uterine fibroids; for the very slight inflammation excited by the action of the needles when mild currents are used and the operations are short, does not tend to diffuse itself like inflammation excited by various other causes, but restricts itself usually to the track of the needle. This appears to be the case even in the peritoneum. It is better, however, and safer, to have the needles insulated when they are to pass through the peritoneum, although there is some practical difficulty in insulating needles thoroughly without making them too large, or hard to slip in. I have operated with a large number of needles through the abdominal walls without producing any evil results that could be traced to the action of the electricity on the peritoneum, or to the irritation of the needles themselves.

The fatal results that have followed electrolytic operations on fibroids of the uterus may be explained in various ways. The currents have been too strong and have been used too long; too large needles or other conductors have been used, consequently suppuration has been excited. There has been some blind experimenting in this direction, which need not be repeated.

In some cases fibroids of the uterus can be treated through the vagina by means of very long needles, and

* Dr. W. F. Hutchinson has published some experiments verifying these deductions in a recent issue of the *Boston Medical and Surgical Journal*.

For a more detailed explanation of this somewhat difficult but very important subject—the application of Ohm's law to electro-therapeutics—I may refer to Chapter 7 of Electro-Physics, in Beard and Rockwell's *Electricity*, second edition. The conclusions from that law which I desire to emphasize just here are that Drs. Kimball and Cutter, in their experiments with a quantity battery, did get electrolysis as they claimed, but only a trifle more than they would have obtained from a single small cell; and secondly, that they did not get any important thermic or heating effects, as has been claimed by others.

* In illustration of this difference in the suppurating point after electrolysis I may refer to two or three cases:

I treated with both poles and quite a strong current a large ganglion on the wrist of a lad of about twelve years; considerable inflammation followed, as in that case I desired, but it did not extend along the sinew, and did not lead to suppuration, and the result was excellent.

On the other hand, in a case of a large erectile tumor on the head of a boy in the Presbyterian Hospital, electrolysis in both operations caused suppuration and unpleasant symptoms; a cure, however, was effected, as has been reported to this Society by Dr. Post. With still greater caution suppuration might have been avoided.

Quite recently I have treated a case of carcinoma of the neck in a patient of Dr. Hamilton, an old gentleman, where relief of the severe pain was quickly gained by external galvanization, but desiring to reduce the size of the tumor, and prevent, if possible, its pressing on the throat so as to make deglutition impossible, I used needles; suppuration followed at once; the tumor was very much reduced in size; the throat was relieved, although, as was expected, he died from exhaustion. I have used ten times as much electrolysis in cancers without producing suppuration.

when this method of introduction is used suppuration is not necessarily to be feared, since a free outlet is afforded. In one case of uterine fibroid that I treated in this way, using a single long needle, connected with the negative pole through the vagina, not a little suppuration occurred, but no evil symptoms accompanied, but on the contrary great relief of the numbness, neuralgia, and other results of the tumor, and this relief did not come until the suppuration appeared.

The results of the electrolytic treatment of cystic and fibroid tumors vary with the size and nature of the growth, with the locality, and with the constitution and condition of the patient.

Benign cystics that are directly accessible can in almost all cases be permanently cured or reduced to a harmless minimum by electrolysis. Malignant cystics can sometimes be treated successfully by electrolysis of the base, and sometimes can be arrested by ordinary electrolysis.

Ovarian tumors, if treated cautiously and judiciously, with proper apparatus, so as not to excite suppuration or severe inflammation, offer, to say the least, an encouraging field for experiment; and the probability is that a certain proportion of cases, if taken before too great size is attained, will be radically cured in this way. Generally, however, these cases are not seen early. The published experience—favorable and unfavorable—of Fieber, Semeleder, and Ulzmann in this department is worthy of note. Dr. Hesse, of Brooklyn, has recently reported a case of ovarian tumor satisfactorily treated by electrolysis.*

There may have been failures in the past, where in the future there will be partial or complete successes. There need be ordinarily no danger in electrolyzing these cases, provided the conditions and cautions here suggested are not forgotten. In this as in other applications of electricity, the greatest mistakes are made in overdoing the treatment, in attempting to concentrate everything in a short time, and in treating all cases alike. Next to cystics, fibro-cystics probably have the best prognosis.

Solid fibroids of the uterus yield in some cases to electrolysis almost as well apparently as goitres; in other cases, just as with fibroids in other parts of the body, no reduction in size is obtained over what comes from actual destruction of tissue. In all, or nearly all, cases, judging from my own experience, and from the published reports of other observers, relief of accompanying symptoms, as neuralgia, numbness, and so forth, can be obtained, even when there is no important reduction in the size of the tumor.

The different varieties of tumors in regard to the comparative prognosis under electrical treatment may be arranged in the following order:

1. Nævi.—Including those raised above the skin, those beneath the skin, and the cutaneous nævi, or mother's marks, when not too large.

The electrolytic treatment of nævi is indeed one of the most satisfactory departments of surgery.

2. Benign Cystics.—Including "weeping sinews," hydrocele, and possibly also small ovarian tumors, as well as cystics in other parts of the body.

3. Goitres.—Some varieties yield far more speedily and more satisfactorily than others, including exophthalmic goitre.

4. Epithelioma of the face, particularly when treated by the method of electrolysis of the base.

5. Fibroids.—Including fibroids of the uterus.

6. Fatty Tumors.—These, when not too large, yield slowly, because fat is a poor conductor, and electrolyzes with difficulty; but, when not too large, they can be radically cured.

7. Carcinoma.—When we consider the rapid relief of pain obtained in even the worst cases of cancer, and the fact that in some cases the growth is arrested, it may be queried whether this variety should not come earlier in the list.

8. Glandular Tumors.—This variety is placed at the foot of the list, because of the difficulty in making enlarged glands diminish in size without suppuration.

In conclusion, it may be added that the one general fact that this discussion enforces is the necessity of grounding our electro-therapeutics on electro-physics. Electro-physics—that is, electricity in its physical relations, including the theory of the nature of the force, the methods of generating it, and the laws that control its phenomena—is far more important, practically, for one who uses electricity in medicine or surgery, and particularly in surgery, than electro-physiology. If either are to be neglected, let it be the latter. It was a want of knowledge of electro-physics that kept back electro-therapeutics for one hundred years subsequent to the discovery of the Leyden jar; it is a want of a diffusion of the right knowledge on this subject, and the erroneous teaching of colleges, schools, and text-books, that cause many of the failures and disappointments and inconsistency of results at the present day, as has been illustrated in the history of the special topic here discussed. While here, as in all other therapeutics, much for the present must be empirical, yet in the future, as in the past, the progress of scientific electro-therapeutics, surgical and medical, will be in proportion to the advance and popularization of just views in electro-physics.

* *Am. Jour. of Obstetrics*, Jan., 1877. The same Journal also contains a report by Dr. Thomas of the statistics given him by Drs. Kimbal and Cutter of the results of their experiments in the treatment of uterine fibroids. Dr. Hutchinson informs me that he has recently treated satisfactorily a case of uterine fibroid by electrolysis, using a mild current and the positive pole. Dr. Livingston, of this city, tells me that he has treated, during the past two years, an intra-mural uterine fibroid by *external* galvanization alone, and very decided softening has resulted.

INSTRUMENTS OF GLASS FOR WASHING OUT THE PUERPERAL UTERUS.

By W. M. CHAMBERLAIN, M.D.

WITH REMARKS UPON THE LOCAL ANTISEPTIC TREATMENT OF PUERPERAL DISEASES, BY DR. H. FRITSCH, OF HALLE.

The use of glass as material for surgical implements is desirable, on account of the certainty and facility with which it may be cleaned, the smoothness of its surface, and the fact that iodine, nitric and chromic acid, etc., etc., which destroy metals and vulcanite, are harmless to this substance.

It does not wear out, it does not corrode; it is always the same, incapable of injury, except by breaking.

Recent processes of annealing have removed in good measure this objection. The method of de la Bastic is only a new application of old ideas. The boiling oil in which he plunges the glass while red-hot does not confer any qualities upon it.

It is simply a non-conductor, capable of absorbing a great deal of heat, and parting with it very slowly. Consequently the glass immersed cools very slowly and equably throughout. Thus treated, it retains a condition intermediate between the perfect plasticity of the molten mass and the perfect brittleness of the same when suddenly cooled in air.

Of material rendered tough by a similar process I

have made canulæ, which will, I think, be found serviceable.

They are figured in the annexed wood-cuts.

No. 1.

No. 2, 3.

No. 4.

No. 1 is a female catheter, 10 of the American scale, designed for use in the office, and especially for women after delivery, when, by reason of septic lochia or diphtheritic lacerations of the vagina, any other instrument would become contaminated, and so a source of infection upon further use.

Nos. 2 and 3 (only one size shown in cut), are simple canulæ, through the calibre of which a slender whalebone stylet, wrapped at one end with cotton, may convey to the interior of the uterus iodine, nitric acid, or any other escharotic, without the risk of its being applied in transit to the cervical rugæ.

One reason why these applications have not answered expectations is doubtless that the caustic has been neutralized by the alkaline mucus of the cervix, or expended upon a surface which it was not desired to affect.

To obviate this, Atthill and others have been accustomed to introduce three, four, or five laminaria tents, and thus procure an excessive dilatation of the cervix, which is always undesirable and sometimes mischievous.

The smaller of these canulæ may be passed through many relaxed cervices. Either of them will readily follow the medium sizes of Peaslee's or Kammen's or Hanks' dilators, a single laminaria tent, or a single and moderate use of Ellinger's or Miller's expanding instruments.

I therefore regard them as more than a convenience, as an absolute saving of an unnecessary and tedious process.

No. 4 is a stout tube fifteen inches in length, and five-eighths of an inch in diameter. The curve has been experimentally adapted for readily entering tl puerperal uterus. The distal end is closed anc rounded like the smaller end of an egg (paraboloid). Beginning half an inch from the closed end on the posterior surface, and following a spiral line around it, are four holes, one inch apart, on the various faces of the instrument. These holes are made when the glass is hot; the edges are, therefore, glazed, and the strength of the instrument is not impaired, as it would be by drilling. They are also a little countersunk, to make sure that they shall not be occluded by applying against the shaggy endometrium. The holes are so arranged that a current cannot be thrown upon the orifices of the Fallopian tubes.

The straight end of the tube is reduced in size to connect with the rubber tube of a syphon irrigator or fountain syringe.

The purpose is to wash out the puerperal uterus, as follows: The patient lies upon her back, with her knees drawn up—beneath her hips is placed a pillow covered with a rubber-cloth continuous nearly or quite to the foot of the bed; a channel may be made in this to lead the water into a pail, as the amount should be more than any bed-pan can contain. The operator, standing erect by the side of the bed, passes the curved end of the connected tube into the vagina, three or four inches, or until a slight resistance tells him that the closed end applies upon the os uteri. The stopcock is opened and the carbolized water, a quart or more, is allowed to flow with a regulated pressure into the vagina until all its surface has been thoroughly washed. This may be aided by a slight rolling motion of the instrument. The straight end is then lowered nearly to the level of the bed, and the beak, *without the introduction of a guiding* finger, slides easily, or after a little manipulation, up to the fundus, and one or two quarts of the disinfecting fluid is passed in and out. If there be any doubt about the ready escape, the flaccid anterior lip may be raised by a lifting motion upon the instrument.

The object is thus accomplished with the least possible irritation to the patient, and with the least expense of time and trouble to the operator, *who is further freed from direct contact with any septic fluid.*

This washing out of the uterus, when at all required, is certainly a matter of first-rate importance.

I find the subject so well treated in a paper by Fritsch, of Halle, that I subjoin a translation of a portion of the same. It forms No. 107 of Volkmann's *Sammlung klinischen Vorträge*, and my attention was called to it by Dr. A. Mayer, of this city. It bears date, Leipzig, Dec., 1876. The translation is sometimes continuous, sometimes detached sentences are omitted. It is to be understood that the author writes in view of those epidemics of puerperal fever (so called), which occur so frequently in the maternity hospitals on the Continent.

". . . . . The preparation of the woman about to be confined consists in that she always goes to a Sitz-bath, to be ordered when the labor-pains begin.

"In the Sitz-bath let the vulva and perineum be thoroughly cleansed with soap. Then let the vagina be irrigated with a solution of carbolic acid, and with the remnant of the solution a second cleansing of the vulva be made. . . . Fehling, in Leipzic, made the experiment of delivering the pregnant woman under spray, but has abandoned it, since a connection between the use of spray and after bleeding was clear.

"Despite this inconvenience in a lying-in hospital where an endemic existed, I would never make an obstetric operation without the spray.

"If the birth be delayed and perhaps operative procedures undertaken, repetition of the vaginal irrigation is important, particularly before any of the greater operations should it be done.

"I have considered whether the somewhat astringent effect of the carbolic solution might not render the vagina rigid or dry. On this account I have directed that an injection of carbolized oil should follow the irrigation. But this is not necessary. The passage remains soft and succulent, and the customary oiling of the finger causes us to recognize no difference before and after irrigation.

"Passing now to the period after birth, we may next consider how nature provides for the escape of the lochia. The conditions for the delivery of this fluid are not altogether favorable. In the recumbent posture, especially when the hips have made a place for themselves in the cushions or mattress somewhat below the general level, the deepest portion of the pelvic cavity is below the level of the posterior vaginal commissure. Even though a tear of the fourchette should favor escape of the lochia, yet the collapsed condition of the rectum causes a deeper cavity. Its fluid must then attain a certain level before it can flow out. A greater or lesser quantity will remain behind, enough to decompose all following discharges. And, when it reaches this needed level, the fluid will not always escape.

"Inspection will show this. . . . . If you syringe the vagina with a female catheter, you will notice that the relaxed and cohering labia do not allow the fluid to pass out below, but it issues above, where the conditions are more favorable, on account of the close apposition of the soft parts from the vulva to the knees. It is often quite a while before the water presses apart the agglutinated walls. For example, in the earlier days of confinement, when there are still blood coagula in the vagina, the flow of injected water often ceases entirely; by and by the vulva separates; the coagulum, and after it a great quantity of water flows out.

"Still more unfavorable are the conditions when œdema of the vulva already exists. Upon touching, during irrigation, we constantly find that the cervix projects free into the cavity, and that the vault of the vagina is not in immediate apposition with it. If the patient raises herself after the injection flow has ceased, there will pour out anew a large quantity of residual injection fluid. In fever cases this large cavity is filled with infectious material. As stands a plant in the ground, so with all its lacerations stands the cervix in a pool of stagnating secretions.

"If now we ask what practical inference may be drawn from these several theoretic conclusions, it is this: that in every case the lochia must be evacuated.

"Even in entirely normal cases, this should be done, if we would remove the possibility of a subsequent invasion of disease. And a selection of cases is impossible, since the resort to rational treatment may surely come too late.

"Half-way measures, such as the application of disinfecting compresses, powdering, washing, or cauterizing abrasions, are proper only when the pelvis has been evacuated Provided this is done from the first, no ulcerations will form, and wounds will heal without special treatment.

"The value of a clyster in confinement is generally admitted, and washing out the vagina is no greater undertaking. I direct that, at the morning and evening visit of the midwife, the vagina shall be washed out, and the vulva cleansed. If I do not know the midwife, the first injections must be made under my own observation. . . . For injections I employ carbolic acid. Surgeons also have observed that salicylic acid is of little value. Even cotton tampons saturated with salicylic acid soon become offensive, and after injections of it the bad smell quickly returns. The strength of the solution should be two per cent.; but stronger are not excluded. The temperature should be 25° R. (= to 89° F.); in the later periods a lower temperature, at discretion, may be employed.

"The irrigator (equal to our fountain syringe or syphon-tube) is the proper instrument to be used when the cavity of the uterus is to be cleansed. It should contain at least a quart (litre). I have often observed that, in the early cleansing, it is only with the third litre that the fluid begins to come away clear. It is needful then to continue the irrigation so long. With the remnant of the solution is the vulva and its hair, from mons to anus, to be thoroughly washed. . . . . If any operation has been made, repeated washings, particularly when the operation has been on account of a dead child, should be made.

"Irrigation is of special importance when liquor ferri has been injected. . . . . Here the washing out, the removal of the stringy coagula, is an integral part of the treatment of the metiorrhagia. In such cases not to excite a fresh bleeding, I have syringed the uterus for the first time, thirty-six hours after delivery, or after the stoppage of the bleeding. . . . . As actively should we proceed when we are called to a lying-in woman who has suffered from fever for one or more days. Then usually the uterus is holding back a certain amount of ichor. . . . In such cases there appears, on account of the infiltrated condition of the uterine parenchyma, a peculiar relaxation of the whole organ. We find by autopsy the uterus often so œdematous, that the rectum has left an impression of itself in the surface of the womb, and by irrigation we see that the stream of water directly dilates the uterus. . . . The simple inference follows that the lochia or the ichor must be evacuated. The indications are the same as with any other dead secretion.

"The treatment of a puerperal affection without cleansing the vagina is something entirely irrational, an obsolete nonsense. We think it inconceivable that one should try to heal a thigh lacerated by gunshot wound and full of ichor by internal medication; yet have they tried to cure puerperal fever by inward medicine, as alcohol, quinine, veratrum, ammonia. Here the prime, the unavoidable indication is the cleansing of the localities from which resorption takes place.

"As the surgeon cleanses every wound, and has for a hundred years considered this the leading feature of his treatment, so must the obstetrician free the uterus and vagina from corrupted lochia.

"It would be a great step in advance if we came to consider the cavity of the uterus as an ichorous abscess-hole, and treat is as the surgeon treats similar deep abscesses."

This may seem strong language, but some experience in puerperal fever satisfies me that there is important truth in it. The remainder of the article of which the above is a portion will be found interesting.

68 West 40th Street, March 3, 1877.

Medical Legislators.—There are seven medical men in the State Assembly this year: Dr. Thos. J. King, of Cattaraugus; Drs. DeWitt Webb and Thos. Hammond, of Dutchess; Dr. M. Billington, of Madison; Dr. Isaac Hayes, of New York; Dr. David McFalls, of St. Lawrence; and Dr. Wm. Gulick, of Schuyler.

A NEW METHOD OF OBTAINING EXTENSION AND COUNTER-EXTENSION IN FRACTURES OF THE FEMUR.

By J. H. CHURCHILL, M.D.,

CROSS RIVER, WESTCHESTER CO., N. Y.

The imperfect union which so often occurs in intracapsular fracture of the neck of the femur is attributed more especially to absence of periosteum within the capsule.

The impossibility of obtaining provisional callus is of course a serious hindrance; but a more serious obstacle to the formation of definitive callus is the almost inevitable rocking of the fragments in consequence of the tendency of the thigh to rotate about its longer axis. The fact that the separated head receives no nourishment except through the round ligament is not of so much importance, as it would seem that the same circulatory apparatus that was sufficient for the formation of the bone in the first place, and for its nutrition afterwards, would be sufficient for its repair.

The difficulties attendant upon the use of the long splint are too well known to need comment.

Having to treat recently a case of fracture of the neck of the femur in a patient sixty years of age and in thin flesh, I devised the following methods of getting counter-extension: A strip of freshly prepared adhesive plaster six inches wide was fitted about the pelvis, the ends lapping in front. Two strips of plaster, one and a quarter inches wide, were applied to the perineum and carried up over the pelvis, so as to lap on the wide plaster in front and behind. A muslin roller somewhat wider than the plaster was then passed about the pelvis, the ends being sewed together in front. Four loops had been strongly secured to the wide adhesive plaster so as to come over the hip on the injured side; these were brought through slits in the roller bandage and through fenestra in the long splint. A stout piece of muslin was now passed through these loops and tied so as to secure the splint firmly to the plaster. Extension was made in the usual way, and the splint, properly padded, was bandaged to the leg and thigh.

Before applying the splint in this manner, I had, on the day of the accident, applied it in the usual way, and on removing it the sixth day for the purpose of reapplying, the perineum appeared much excoriated and there was an ulcer over the sacrum. These rapidly healed under the plasters, and when the apparatus was removed, just six weeks from that day there was no abrasion to be found. The patient has a perfect joint, and not sufficient shortening to be appreciable to herself in walking. The success seems sufficient to warrant the presentation of the appliance to the profession for further trial.

For extension I have devised a method which is useful in some cases. The screw is removed from the lower end of a long splint, and the foot-piece attached to a strap which passes over a roller in the end of the splint and up the outside. It is attached to a strong elastic by means of a buckle, and the elastic is attached to the upper end of the splint. By means of the buckle the elastic may be stretched more or less, so that any degree of extending force which may be required can be obtained.

Dr. J. Marion Sims has been elected honorary member of the Obstetrical Society of Dublin.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities in Treatment.

TREATMENT OF CONSTIPATION ASSOCIATED WITH CHLOROSIS.

It was believed to be of nervous origin, and due to paralysis of the intestines; there was also spasmodic constriction of the intestinal tube. The result was complete relaxation and dilatation of the tube at one part, and stricture at another. It was maintained that there was associated with this condition either a deficiency, total suspension, or perversion of the alimentary secretions from the liver down; hence the pale color of the stools and the white viscid mucus that commonly coated the mucous membrane. The constipation being a nervous disease, and due to reflex irritation of the plexuses of nerves and their glanglia which have to do with the innervation of the circulation, the following plan of treatment was recommended:

First, operate upon the peripheral extremities of the nerves involved, by means of external application. It was a well-known fact that when the feet and hands were plunged into water, contraction of the ovarian plexus of nerves was produced; hence one of the most natural methods for bringing about increased flow of blood to the uterus was to avail ourselves of the stimulation produced by dry heat applied to the feet and hands. It was believed that many cases of chlorosis could be mainly relieved by the application of dry heat to the feet, and cases were cited in which electricity, applied to the cervix and interior of the uterus, had failed, but heating the feet upon the stove for three hours every day had restored menstruation. Any of the irritant stimulants, when used for the special purpose of increasing arterial circulation, had precisely the same action as dry heat; that is, they stimulated the heart, hence increased the arterial current. In addition to the dry heat, wrapping the feet and arms in cloths wet in a solution of capsicum, and applying the same over the bowels, would be found to be of great assistance in overcoming the constipation.

It was recommended not to resort to cathartics until the measures just mentioned had been employed for some time. Of cathartics, aloes and rhubarb were said to be the most serviceable. The form most convenient for their administration was the compound rhubarb pill, and of those three might be given at night twice a week, or even every night, until the bowels had been rendered soluble. Iron should never be relied upon unless used in conjunction with these two remedies. When the bowels had been rendered soluble, iron might be used; but all its preparations were precluded, with a *single exception*. The very best results were obtained by combining sulphate of iron with carbonate of potassa and nux vomica, as in the following prescription:

℞. Potassæ bicarb..... ʒss. to ʒij.
Ferri sulph..... gr. x.
Ex. nucis vom..... gr. x.
M. et div. in pil. No. xx.
S.—One to be taken after each meal.

In addition, it was desirable to have a pill which could be administered subsequently, whenever the bowels became confined. To restore innervation and rhythm to the muscular coat of the intestine were the indications to be met by such a pill. For that pur-

pose there were two agents which could be employed—namely, belladonna and nux vomica. For the purpose of restoring innervation to involuntary muscular fibre, belladonna was regarded as the most serviceable. If the two remedies were combined with small doses of a real laxative or cathartic, it would be found that such small doses would produce free catharsis, whereas double the quantity would be required to produce the same effect if administered alone.

For the constipation under the circumstances alluded to, the following prescription was written:

℞. Ext. belladonnæ..... gr. v.
Ext. nucis vom..... gr. x.
Ext. colocynth. co..... ʒ i.

M. et div. in pil. No. xx.
S.—One to be taken at bedtime.

If the colocynth griped, the griping could be prevented by the addition of ℈ij. of the bicarbonate of soda, and then dividing the mass into 40 pills, of which two instead of one should be taken.

Electricity was regarded as a valuable agent in the treatment of chlorosis, simply because it operated as a stimulant to the circulation, the same as dry heat. It was desirable to apply it to parts associated with the uterine circulation; and that could be conveniently done by placing one pole of the battery upon the soles of the feet, and the other over the sacrum. The proper time for such application was immediately after breakfast, because the electricity also acted upon the intestines, and that being the normal time for an evacuation from the bowels, it might materially assist in overcoming the constipation.

PLEURISY, WITH EFFUSION—HYDRO-PERITONEUM—ŒDEMA OF THE FEET—INDICATIONS FOR REMOVAL OF THE FLUID FROM THE PLEURAL CAVITY—INSTRUMENT WITH WHICH IT WAS REMOVED.

The patient was a Polish woman, who was deaf and entirely unacquainted with the English, and had only a very slight knowledge of the German language. Nothing was known of her history. There was considerable fluid in the abdominal cavity, but nothing sufficient to render an operation for its removal immediately necessary. There was a moderate amount of œdema of the feet, but an examination of the urine gave negative results; and there was no evidence of chronic cardiac disease. Nothing was known of the habits of the patient, but the hydro-peritoneum involved a strong presumption regarding the use of alcoholic stimulants. In addition, the woman had a considerable quantity of liquid in the left pleural cavity alone, and it was not, therefore, hydrothorax. When she made any exertion her respiration became considerably embarrassed. The apex beat could not be found, but the cardiac sounds led to the conclusion that the heart was crowded over to the right side, so that the apex was under the sternum. When liquid in the pleural cavity gave embarrassment to the respiration, and was not promptly absorbed by the employment of measures having reference to the promotion of absorption, or the patient was found too feeble to bear the presence of the fluid well, there should be no delay, said the visiting physician, in effecting its removal by means of an operation which has been made so trivial as to involve no liability to danger, and yet was capable of accomplishing in a few minutes, what, under the most favorable circumstances, by the use of remedies, would require considerable time.

An instrument devised by Prof. Flint some fourteen years ago, called "Flint's Aspirator," was employed, and ℥ xxxii. of fluid removed from the pleural cavity. A description of the instrument can be found in the RECORD for Dec. 2, 1876, where it is claimed as a new invention by Dr. Gritti, of Milan, and published in the *Lancet* for November 4.

Progress of Medical Science.

SALICYLIC ACID AND ITS COMPOUNDS COMPARED WITH OTHER ANTISEPTICS.—According to the results of some comparative experiments which Mr. Lapper has done, the value of salicylic acid in arresting putrefaction is not so high as some other substances which are in use for the same purpose. He obtained some fresh bullock's blood, had it defibrinated, and then mixed it with a $\frac{1}{1000}$ part of its weight of various so-called preservative substances; one series of experiments was then conducted at a temperature of 100° F., that of living blood, and the other at the ordinary temperature at which experiments are usually made. Though the amount of the antiseptic employed was small, it was very much larger than is administered in disease, and Mr. Lapper holds the opinion that the usual quantity prescribed is very far from being sufficient to act with special antiseptic force upon such a large mass as the living blood. Salicylic acid in the proportion used was found to have but slight effect in preventing putrefaction. The synthetical acid, or that obtained by Kolbe's process, was slightly superior to the acid from oil of wintergreen. The salicylate of potassium seemed to prevent putrefaction to the same extent as the acid itself. The zinc salt had an equal potency at blood heat, but a greater at the ordinary temperature. With the zinc sulpho-salicylate it was the reverse, its efficacy being greater at a higher than at a lower temperature. Carbolic acid at the ordinary temperature stood pre-eminent, while at the higher it was inferior in arresting putrefaction to both sulpho-carbolate of zinc and sulphate of quinia. The bisulphite of sodium seemed to hasten putrefaction at 100 F., while at the ordinary temperature it had no effect whatever. Benzoic acid at 100° F. had the same potency as carbolic acid, but at the ordinary temperature it was inferior.—*Dublin Journ. of Med. Sci.*, April, 1876.

CURE OF ANEURISM BY COMPLETE TEMPORARY PRESSURE.—Another case has been reported in which elastic pressure has been successful in the treatment of aneurism. A man, thirty-nine years of age, the subject of syphilis, was taken into the Nottingham Hospital on the 1st of November last, suffering from a femoral aneurism of six months' duration. For the first few days, rest in bed was the only treatment adopted. Then a Carte's compressor was applied to the external iliac and common femoral arteries, but no benefit was observed in either case. Then from November 7th to December 4th pressure with a shot-bag was more or less constantly used, and the diet was regulated by Mr. Tufnell's rules. Still no improvement was seen, and finally the elastic bandage was tried, the foot, leg, and thigh being strongly compressed, while a stout rubber tourniquet was fixed round the limb above the bandage. This was done at 11:15 A.M., Dec. 31st. At 1:30 P.M. the tourniquet was removed and a shot-bag was placed over the vessel, but the bandage was allowed to remain in position. At 2:30 P.M., when the bandage was removed, the tumor was found to be firm, and the pulsation had ceased, except at the upper part. As a precautionary measure the application of the shot-bag was

ontinued. At 12:30 P.M. of the next day all pulsation had ceased, though it returned again in the evening, and continued feebly until January 4th. On January 5th pressure over the artery was discontinued, and the case was practically cured. It is thought that in this case the mode of cure was by the deposition of laminated fibrine within the sac, for the return of the pulsation, and its continuance for several days, would prove that the main vessel leading into the sac had not been completely plugged. In the cases of popliteal aneurism which have been reported cured by Esmarch's method, it was said that the pulsation did not return after its arrest at first, and in Dr. Reid's case dissection showed that the cure had taken place by plugging of the afferent vessel, and organization of the clot. It is therefore thought that the method of cure in elastic pressure may be in two ways, viz., by the gradual deposition of laminated fibrine, or by plugging of the afferent vessel.

While the compression of the main artery only does not control the collateral and anastomotic circulation, but allows a certain quantity of slowly-moving blood to pass through the sac, the total compression by means of the elastic bandage allows not only the coagulation of the blood left within the sac, but also the formation of a firm clot within the artery leading into the sac, afterwards to be connected with the walls of the vessel by organization.—*Lancet*, Feb. 3, 1877.

RUPTURE OF THE SPLEEN, WITH RECOVERY.—According to the *St. Petersburger Med. Zeitsch.*, a physician, thirty-three years of age, after an attack of typhus fever, and seventeen days of convalescence, had four short but sharp exacerbations of fever, in which the spleen became larger than at any time during his illness. After a severe fit of vomiting, symptoms of rupture of the spleen, with internal hemorrhage, set in; the pain in the epigastrium was intense and paroxysmal; an increased area of dulness was manifested about the enlarged spleen, and there was collapse. The symptoms of extending dulness and collapse increased, the temperature sank, and there was cyanosis and suppression of urine. Bladders of ice were applied to the abdomen, and a grain of opium was given every three hours, and finally subcutaneous injections of camphor were tried and enemata of port wine. On the following day there were no symptoms of peritonitis, and at length there was absorption of the extravasation and general improvement, terminating in recovery. The seriousness of the accident may be judged from the fact that of twenty-two similar cases conducted by Kerner, all died.—*Berl. Klin. Woch.*, 4, 1877.

ABDOMINAL ANEURISM TREATED BY ACONITE AND REST—RECOVERY.—Dr. Grimshaw reports a case in which a permanent cure resulted under Tufnell's method, in combination with aconite. The patient was admitted into Steevens Hospital, Dublin, April 7, 1875. A large tumor was found to occupy the upper part of the abdomen, in the epigastric region. It reached nearly as far down as the umbilicus, was lobular in form, tolerably firm, and had violent expansile vibrations. A loud bellows murmur was heard over the tumor and along both sides of the spine behind. The patient also complained of much pain in the tumor, back, and limbs, and the feet were occasionally swollen. A diagnosis of aneurism, either of the aorta or some of its branches, was made. As it seemed clear that the patient would not submit to the rigid plan laid down by Mr. Tufnell, some modifications of it were made. Rest in the recumbent position was enjoined, but the patient was allowed to turn on his side, and move about to a considerable extent. He was kept on low diet, consisting of bread and tea, beef-tea and soup, but no stimulants were allowed. Dr. Grimshaw having also found that aconite proved to be beneficial in two cases of thoracic aneurism, determined to employ it in this case, believing that in this way the patient's life might be prolonged, though a cure was hardly to be expected. Accordingly, while following the method already mentioned, the tincture of aconite in five-minim doses was administered every three hours. On the day following, the pulse had diminished to about 50 per minute, though the patient did not admit there was any diminution in the local symptoms. On the following day, however, he felt the beating only once, but complained of burning in his mouth, and tingling in his limbs. The pulse was slow and weak, and the limbs showed a tendency to become cold. The pulsations had clearly lessened. At the end of a week the symptoms of aconite poisoning became so marked that the amount was reduced one-half, at which daily quantity it was given for three months, the plan being to diminish the drug only when there was tingling in the extremities. In July a considerable improvement had taken place in the tumor, but the patient's general health had failed, so that an addition of meat and stirabout was made to his diet. The aconite was diminished, and finally abandoned on August 24th, and Parrish's syrup was given instead. On November 7th the tumor had very much decreased in size, and the murmur was inaudible, but there was some pulsation. On November 14th the pulsation had ceased, and on December 8th he left the hospital, having been there altogether two hundred and forty-four days. The patient is now in the possession of good health, though he is not so active upon his legs as before his illness. Dr. Grimshaw believes that in a certain number of cases patients will not submit to Tufnell's treatment, and in such he would suggest aconite. At any rate, the two methods may advantageously be used in combination.—*Dublin Journ. of Med. Sci.*, April, 1876.

ROUGH AND READY LITHOTOMY.—A paper on "Indian Surgical Instruments" is published in the *Indian Medical Gazette* by Dr. R. Temple Wright, from which we glean the following account of the manner in which the native doctor cuts for stone. The patient is first drugged with cannabis indica (largely used in the country as an intoxicating agent, both as a sweetmeat and mixed with tobacco), and the bowels are cleared out, after which he is tied up in the usual lithotomy position. The practitioner then, without using any sort of staff, passes the index and middle fingers of his left hand into the rectum, while with his right hand he presses on the supra-pubic region, so as to bring the bladder and its contents as far as possible within the reach of the left hand. He then pushes the stone towards the perineum with the fingers which are in the rectum, and then with "an old razor" makes a free incision *transversely* across the perineum, "knowing and caring nothing about the anatomy of the region," but cutting deep enough to reach the stone, which he hopes will come out with a jerk when he has cut far enough. If it does not jump out, he either pulls it out with his fingers or forceps, or extracts it with a goat's horn or a rough scoop. Undue hemorrhage, singularly enough said to be unusual, is stopped by the application of ashes and earth. We are reminded by the foregoing of a famous Italian quack, who was remarkably successful in performing lithotomy until an English surgeon taught him the anatomy of the region he hacked, after which no consideration or bribe would induce him to adventure on another operation.—*Lancet.*

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GEORGE F. SHRADY, A.M., M.D., Editor.

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CONCERNING MEDICAL DISCUSSIONS.

It may be difficult to believe, judging from the published reports of medical societies, that the discussions of papers and relations of cases are not what they should be. The truth is, however, that hardly one-half of what is said and done during the meetings of these bodies is ever heard of outside the walls of the meeting halls. We imagine that this is the case everywhere, and on all occasions, whenever a promiscuous body of men come together to discuss, without order or method, any and every subject which may be presented. When we view the results in the mere light of accidents of circumstance, there is always a wide latitude for the charitable interpretation of a motive. But the great majority of irrelevant discussions do not come under this category. As a rule, irrelevant matter is brought before societies, less as a result of innocent misapprehension of the questions at issue, than a deliberate intention to say something at all hazards. We have too many gentlemen in this city who look upon the societies as advertising media for the sale of their intellectual wares, and who lose no opportunity for presenting them in as many different phases as may best suit their purposes. There are not a few who are present at every meeting, and whose conscientious regard of a personal duty compels them to make a few remarks upon every subject presented. Out of a mistaken courtesy the chairman allows them to talk, and out of self-sacrificing politeness the members suffer the infliction. We do not wish to deny these gentlemen the pleasure which they may derive from talking; indeed, the intensity of their enjoyment during the performance makes every listener realize that it is more blessed to give than to receive. If, perchance, as the result of this wandering loquacity we get a single new idea, or a pertinent suggestion, we forgive ourselves for the toleration. All this, however, takes time, is a severe tax on the vaso-motor system, and should be repressed. The chairman of such a meeting has a heavy responsibility to discharge. His duty very plainly lies in the direction of at least a mitigation of the evil. If he cannot actually prevent the speaker from rising, he can keep him sufficiently to his text to cut him short, so that we can get at the raisin in his pudding without chewing too much of the introductory crust, or without learning how the oven was managed to cook the dish. Associated with irrelevant and windy discussion is the tedious detail of cases. The most unimportant matters are magnified beyond any calculation of ordinary discretion, as if it were necessary to fire a cannon every time a patient had a passage from his bowels. We are happy to say that these cases are exceptions to the rule, and that there are plenty of men in New York who never speak but to a purpose, who are always listened to with pleasure, and to whom the societies owe whatever of real usefulness they possess.

PUERPERAL FEVER IN CHARITY HOSPITAL.

The letter of Dr. Gillette, which appears in another column, calls our attention to the remarks we made recently in reference to the occurrence of puerperal fever in Charity Hospital. We take occasion to review his statements because it gives us an opportunity for proving that there is not so much difference between us as would at first appear. On the contrary, his remarks serve more as an endorsement of what was said than as a criticism. Our main object in calling attention to the subject was to point out the danger of treating puerperal women in large hospitals. We have no reason to doubt the accuracy of his statistics or the conclusions founded upon them. In fact, the flattering exhibit of success in treatment narrows the question to the real influence of hospitalism as a genetic factor of puerperal fever. If we understand Dr. Gillette he freely admits the tenability of such a view. The mere assertion that the lying-in wards being in Charity Hospital is not detrimental to the service in the sense that the same service at Bellevue was detrimental, is a question of difference of degree rather than one of kind. For the sake of the argument we may assume that Charity has every hygienic opportunity in stamping out puerperal fever, except that it has the misfortune of being a large hospital. In other words, if we could only do away with the hospital as such there seemingly would be no possible chance of generating fever cases. But we do not feel ourselves free to imagine that the doctor is an advocate for large hospitals for puerperal women. On the contrary, we believe that he is willing to confess that pavilions are better, and that the completion of the structures to which he refers will meet many if not all the requirements in the case. We do not quite agree with him that the construction of temporary pavilions is a Utopian idea, for nothing is Utopian which is possible, and, further, we fail to see the force of his argument that anything said or done in the way of reform in

al management—a reform which he tacitly admits legitimate—should have a hampering or discourag- reaction upon "Charity." If it were not for the ts which he so generously places at our disposal, might be inclined to suppose that he was begging real point at issue by confounding the arrest of disease with its prevention. We confess ourselves st concerned in the latter, and shall, in view of our ty, continue to criticise the policy of treating puer- al women in general hospitals. If our correspond- would have us believe, by any statistics which he given, that the management of Charity Hospital, this regard, is absolutely faultless, we distinctly te that we take issue with him; but if he is willing admit the contrary we heartily sympathize with n in his efforts for reform. Whichever way the tter is viewed we have no reason to regret any- ng we have written.

THE METRIC SYSTEM AND OTHER MATTERS.

. J. F. Baldwin, Professor of Physiology in umbus Medical College, and one of the Editors of *Ohio Medical Recorder*, criticises our recent articles the metric system in a manner that is quite refresh- . His main argument appears to be that the metric tem is altogether too complicated to be compre- ded by the average medical mind. Judged from Ohio standpoint, this may be the case, for Dr. B. es as follows: "About a year ago I attended a ll gathering of about a dozen exceedingly intelli- t medical gentlemen. During the evening it be- ne desirable to know the length of a *centimetre;* not of these gentlemen was able to give it, their *ap- ximates* varying from half an inch to an inch and alf." Does the Professor include himself in the nber? If "a dozen exceedingly intelligent" umbus physicians were thus ignorant of a matter ch is fully explained in the U. S. Dispensatory, it must be the status of the remaining physicians Ohio, who, in contradistinction, are not "exceed- ly intelligent"? The Professor further regrets we did not give a translation of the quotation. *ensuribus nunquam, sed semper ponderibus, liquo- quantitas indicanda et determinanda est*," and mates that our neglect to do so savors of "conceit pedantry." Really, we think that the criticism of Professor is an insult, not only to the medical men Ohio, but to the intelligence of the profession at e. This attempt to make ignorance respectable is aps best explained by the encouragement which iven by the Professor to cheap medical education. in fact one of the strong arguments in favor of a ege which furnishes matriculation and professors' cts for $30—an argument in favor of debauching the ploughshare and the anvil, men who might me useful citizens in appropriate stations, but who, to embrace a profession for which they are not l, reflect their ignorance and incapacity on the pro- fession as a whole. Will the *educated* physicians of this country never awaken to the fact that every ignoramus armed with a diploma, is an enemy, not only to the public, but to the profession itself. Why does Homœopathy flourish more luxuriantly here than abroad? Partly because there is so little contrast between them; so many of our own men to whom the Latin sentence above written would prove a "pons asinorum." If, however, the medical profession of Ohio are willing to give their moral support to $30 colleges, they must expect to realize the truth of the old proverb, "Poor pay, poor preach," and its natural consequences.

Reviews and Notices of Books.

A Directory for the Dissection of the Human Body. By John Cleland, M.D., F.R S., Professor of Anatomy and Physiology in Queen's College, Galway. Philadelphia: Henry C. Lea. 1877, pp. 182.

This little book is intended to replace at the dissecting table the larger descriptive works that students so frequently employ, the author believing that it is better to study these latter thoroughly at home, and to have but an outline guide, as it were, by the side of the "subject." After preliminary chapters on "The Use of Instruments" and "The Order of Dissection," the author proceeds to a clear and graphic account of the principal features of the several regions, neglecting, of course, the minor details. The work, on the whole, is a welcome addition to our rather scanty stock of small but good dissecting manuals.

The Practitioner's Handbook of Treatment; or, The Principles of Therapeutics. By J. Milner Fothergill, M.D., Member of Royal College of Physicians of London, etc., etc. Philadelphia: H. C. Lea. 1877. 8vo, pp. 577.

This work is very aptly named, and for such as are in search of the "thoroughly practical" method of studying diseases, will be appreciated accordingly. It is somewhat difficult to give an idea of its scope, as its system of arrangement is not very definite, and the discussion of its subjects is desultory rather than logical. This, considering the general character of the work, is not depreciative criticism. In fact, under the circumstances, an arbitrary arrangement of subjects would detract from the real interest of the work. The author, however, makes an attempt to be systematic, but his desire to impart practical information is too strong to enable him always to stick to his text. For instance, he starts with the intention of laying down principles governing the laws of disease, and constantly dovetails some practical hint connected with the treatment of a particular disease, and not infrequently gives a prescription. But this is a virtue rather than a fault, in connection with the main object he has in view. His work gives one the impression of a familiar talk upon the practice of medicine, profusely illustrated with valuable practical hints. No one can read it without being impressed with the immense amount of common sense which is possessed by the author, as well as natural tact in interpreting the indications of treatment. His style is clear and agreeable, and he has the faculty of expounding the fundamental principles of medicine in such a way as to

give them a practical application to treatment. We shall not attempt to enumerate the number of diseases to which he refers; suffice it to say that they extend over a wide range of practice, and that their careful study will amply repay every busy worker in our ranks. It is, in fact, one of the most interesting, entertaining, and instructive works of its kind we have ever read.

VALEDICTORY ADDRESS, IN BEHALF OF THE FACULTY, MED. DEPART. UNIV. OF CALIFORNIA. By F. W. HATCH, A.M., M.D. San Francisco, 1876.

VALEDICTORIES are rarely more than farewell partings, expressed in parental language, warning the newly-fledged M.D. against the perils of the future, and pointing out to him the channels through which he must steer to attain success. Dr. Hatch avoids in a great measure the usual platitudes of the occasion, and briefly indicates the advantages which recent students have over those of former years.

OBSTETRICS AND GYNÆCOLOGY 100 YEARS AGO. An Introductory Lecture, by PROF. ALEX. RUSSELL SIMPSON, President Edinburgh Obstetrical Society. London, 1876.

THIS *brochure*, now republished from the *Obstetrical Journal* of December, 1876, was inspired by a recent visit of its author to this country at the time of the session of the International Medical Congress. After paying a complimentary tribute to those who, by their contributions to obstetrical literature, aided to make that gathering a memorable one, he devotes the chief portion of his lecture to an exceedingly interesting review of the old-fashioned procedures and undeveloped views of the obstetricians and gynæcologists of 100 years ago.

LESSONS TO BE LEARNED FROM THE CHOLERA FACTS OF THE PAST YEAR, ETC. By ELY MCCLELLAN, M.D., Surgeon U. S. Army. Louisville, 1876.

THE author of this pamphlet (originally printed in the columns of a contemporary) seems to have identified himself conspicuously during the few years past with cholera progress and statistics. After alluding *in extenso* to the march of the disease in Syria and other oriental countries, and its recent history in the United States, he submits the following propositions: 1. Asiatic cholera has never yet originated upon the North American continent, but has invariably reached its shores after it has been transported across the Atlantic Ocean. 2. It is diffused by migrations of individuals infected with the disease; in their dejections there exists an organic matter, at a certain stage of development capable of reproducing the disease in the alimentary canal of other persons; articles of clothing, merchandise, furniture, etc., infected by soiling with the excreta of cholera cases, retain indefinitely their power of infection, and may be the means of conveying the disease to a distance. The remedies are: 1, prevent its importation; 2, stamp it out after it gains access.

TWENTY-NINTH ANNUAL REPORT OF THE TRUSTEES OF THE MASSACHUSETTS SCHOOL FOR IDIOTIC AND FEEBLE-MINDED YOUTH. October, 1876.

AFTER paying a deserved tribute to the memory of Dr. Howe, to whose efforts this institution owed so much of its success, the report dwells on the good results that have been attained by the system pursued in it, by which more than three-fifths of the 548 idiotic youth enrolled as pupils have been improved either physically, morally, or intellectually, and raised in the scale of humanity.

Reports of Societies.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting, February 2d, 1877.*

DR. CHARLES M. ALLIN, PRESIDENT, IN THE CHA

PRACTICAL POINTS IN THE ELECTROLYTIC TREATME OF CYSTIC AND FIBROID TUMORS.

DR. G. M. BEARD'S paper (*vid.* p. 161) being open discussion,

DR. ROBERT NEWMAN remarked, with regard to application of the needles, that he did not agree w Dr. Beard. For, if a positive pole was applied clos to a negative one, a disturbance was created whi if possible, should be avoided. Now, if the posit pole was applied at a large distance from the tumo be operated upon, applied in the hand, for instar where we had a simple conductor, all the action concentrated in the negative pole and without distu ance.

Dr. Newman spoke in the most commendable te of the power of electrolysis for the relief of p especially in cases of carcinoma of the breast. doctor took a rather liberal view regarding the effic of the electrolytic treatment of malignant tumors, thought that in cases in which the axillary glanc speaking of scirrhus of the breast—were not involv or the glands nearest to the growth in any case, surface of the skin not broken, there was no supp tion or hemorrhage, and the treatment was commer early, there was a fair chance to cure the disc Regarding the beneficial effect produced upon rian tumors by this plan of treatment, he expre some doubt. If the cyst was unilocular, it m perhaps, be cured as well as a hydrocele; but in treatment of a multilocular cyst the result was pr bly much more questionable.

DR. BEARD remarked that in medical electricity practical difference between the two poles was on degree; whereas in surgical electricity the prac difference was almost in kind.

DR. F. N. OTIS inquired regarding the results tained by the electrolytic treatment of ordinary gl ular hyperplasias or adenoma.

DR. BEARD replied that simple adenoma or gla lar enlargements were more unfavorable for treat than even malignant growths. When they were hard and large they were not pleasant to treat, fc reason that they did not readily disappear.

DR. NEWMAN'S experience in respect to this cla tumors had been the same as Dr. Beard's, and alth he had seen cases in which the enlargement o glands rapidly disappeared, it very soon retu The size of the affected gland was reduced, but general cause remaining, it was soon reattained.

DR. BEARD remarked that, in general, the be sults were obtained in the treatment of nævi kinds; next, in the treatment of cystic tumo benign character; then followed fibro-cystic tu then came epithelial cancers of the face, taken and treated by electrolysis at the base; and ne order were malignant tumors in different parts body. It was thought that, perhaps, fibroid s go before malignant tumors, but the tumors in the least favorable results had been obtained we adenomas.

* This report has been delayed until this time in order to pany Dr. Beard's paper.—ED.

R. R. P. LINCOLN inquired whether more malignant ors had been cured than simple fibroids?

R. BEARD replied that he did not think a very e number of either variety had been cured. He inclined to the opinion that, perhaps, so far as rable results were concerned, fibroids should pre- malignant growths. For it had not been deter- ed whether malignant tumors had been cured, ause if the tumor under treatment had been cured, as at once said that it was not malignant.

R. LINCOLN referred to four cases of goitre, in ch, without the aid of internal remedies, he had ceeded in completely removing the tumor by means the electrolytic treatment. He had employed a ier small-sized battery, and made each *séance* from to twelve minutes.

R. BEARD, in reply to a question, remarked that he seen one case of exophthalmic goitre completely ed by means of electricity.

member referred to four cases of ordinary goitre which the pulsation had been materially diminished the use of electricity; he had also used it in one of exophthalmic goitre, but without affording relief.

ome discussion followed with reference to the dif- lty in removing the positive needle, and the best ns by which such difficulty could be avoided. opinion which seemed to prevail was that the iculty could be best overcome by simply reversing current until the positive needle was loosened.

he Association then adjourned.

EDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, February 26, 1877.

DR. J. C. PETERS, PRESIDENT, IN THE CHAIR.

NEW MEMBERS.

accordance with a recommendation from the nitia Minora, it was voted to grant certificates of mbership to Drs. Albert A. Davis, G. F. Bates, k Blumenthal, J. F. Golding, C. R. Bogert, Fred- k Bedford, John Osborn, Charles K. Briddon, n M. Beekman, M. S. Buttles, J. H. Eden, and A. Dana.

POXANTHINE—CHEMICAL ANALYSIS OF THE BLOOD IN LEUCOCYTHÆMIA.

DR. CHARLES A. DOREMUS gave the result of chemi- analysis of blood taken from a patient suffering h leucocythæmia. The clinical history of the case been reported to the Society some time previously Dr. E. G. Janeway. On account of the deficiency the quantity submitted for analysis, hypoxanthine not found in the urine. The quantity of blood mined was three ounces, and by careful chemical nipulation positive evidence was obtained that oxanthine was present. Specimen crystals were ibited with the microscope.

RELATIONS OF THE URINARY ORGANS TO PUERPERAL DISEASES.

DR. W. M. CHAMBERLAIN read a paper upon the ve subject, and reached the following conclusions:

. Acute erysipelatous inflammation of the external itals might ascend to the kidney, sometimes by inner and sometimes by the outer surface of the nary tract.

. The blood of the parturient woman, saturated n fibrine and poor in hæmoglobin, predisposed her disease of the excretory organs—the kidneys and liver. With a sufficient exciting cause, acute fatty metamorphosis occurred. Fatal cases only were demonstrable, but minor grades of the process were probably not infrequent.

3. Limited lymphangitis (or cellulitis) and diffuse lymphangitis might mechanically induce acute œdema of the kidney in the puerperal woman by obstruction of the ureter.

Diphtheritic or other inflammation involving the muscular coat of the bladder produced the same result.

Œdema of the kidney, however produced, favored rapid degeneration both of the tubular and intertubular structure.

4. Diffuse lymphangitis, commonly attending septic processes, by reason of rapid destruction of the hæmoglobin, favored the same result, while ulcerative endometritis, suppurative metrophlebitis and cellulitis, tending to pyæmia, not unfrequently were productive of metastatic suppurative nephritis.

5. The condition known as uræmia favored the development of peritonitis in parturient women.

The paper was discussed by Drs. Barker and Putnam-Jacobi.

Correspondence.

PUERPERAL FEVER AT CHARITY HOSPITAL.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The editorial in a recent number of your journal is calculated to do an injustice, insomuch as it is based upon some sad misapprehension. That there has been puerperal fever in Charity Hospital since the removal of the lying-in service from Bellevue to its wards is a fact, but that it has ever reached the dimensions of an "epidemic," in the sense your article would convey, is a mistake.

During the three years 1874, 1875, and 1876, there have been 1,387 deliveries in our service, and 11 deaths from puerperal fever. This would make our average mortality from this cause 0.79 per cent., say about three-quarters of one per cent.

Do you know a maternity of equal magnitude to Charity presenting any better report than this?

You say with regard to our management: "Regardless of the experience of the past, the old routine has been resumed, with a result corresponding to what might have been expected." Comparing this statement with the facts, the only agreement I can find is that the service has been continued from time to time within the halls of the General Hospital building. This has been no detriment to the service in the sense that the service thus situated at Bellevue was detrimental, for our wards are larger by far, flooded with light and air from windows upon three sides, extending almost to the ceiling.

Surrounding the hospital, as you know, is a magnificent expanse of water and park, and there is no one to dispute that there is anywhere in the land a more delightful and salubrious spot than where these patients are cared for.

The lying-in wards are thoroughly policed, and no visitors are permitted to enter them. Even the house physicians and surgeons, on duty elsewhere, are forbidden to enter; nurses, officials, patients—indeed, every one is excluded from that part of the hospital except those who may be on duty there.

The "waiting" women are not allowed to com-

mingle with the other patients. They are under so many restrictions that at times they feel they are prisoners. It is needless to tell you that every precaution in the direction of personal and ward cleanliness is observed, and, moreover, that clinical exhibition of the women is interdicted. It would surprise you, if you had time to inquire into the conservatism of our practice. The forceps are rarely applied, and other operative procedures are so rare as to put the service on a plane with private practice.

Our mortality from all causes combined is 2.50 per cent., and this, mind you, is among a class of women who come to us broken in health and morals. Forty-five per cent. are unmarried, and all are representatives of the most wretched and hopeless class in the community.

During the latter part of January, puerperal fever started, and two of our patients died. No doubt this would have become an epidemic had we not stamped it out at once by our usual means—and these very means exist in the abundant room and facilities the hospital and its outlying pavilions afford. The "waiting women" were at once transferred to pavilion C (which had been occupied by epileptics), and an entirely new set of nurses and house physicians put in charge. The women (five) already sick were quarantined in the wards they occupied, with the doctors and nurses who had them in care at the time of their attack. Those convalescent and all others not sick were distributed to another ward, with a new and special set of attendants. The women who had been sent to the pavilion were subjected to daily baths of carbolized water, their clothing was changed throughout, and every effort, hygienic, police, and quarantine, exerted in their behalf. The result was, as we expected from former experience, that not another case of fever occurred, either in this class or the convalescents left in the hospital.

You will pardon this perhaps immaterial matter in my communication, but it seems necessary to show you that our routine is in no respect like that charged in your article.

In a short time we expect to remove the service to its new quarters near the Alms-house, in pavilions especially erected for the purpose. They are in process of construction at present. Although it would perhaps be better to construct such hospitals after the direction of hygienists, and in a form which would permit destruction by fire or otherwise upon the occurrence of this fatally contagious disease, yet, if submitted to our taxpayers, I doubt whether they would encourage us to add to their debts, for the purpose and class interested. This idea is Utopian, and all we can hope to do is to control and prevent this disease by all vigilance and care.

It is as suppressible, when once it has started, as small-pox, and we never have failed to check it in Charity, and we never shall fail (our statistics prove our position) unless we are hampered and discouraged by sentiments (which may take form and action) such as your article was calculated to inspire.

Very respectfully,

WALTER R. GILLETTE, M.D.,

VISITING PHYSICIAN, LYING-IN SERVICE, CHARITY HOSPITAL.

QUININE AND HYDROBROMIC ACID.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In No. 329 of THE RECORD is an article from "M. D." representing the danger of prescribing hydrobromic acid. The writer thinks that through a communication from me, in No. 320 of THE RECORD, a Brooklyn physician might have poisoned one of l patients, but for the remarkable, discriminati intelligence of a Brooklyn druggist.

I am truly sorry that I have jeopardized the li of the Brooklyn people. My position is this: T statements of Fothergill, of London, in regard to t value of hydrobromic acid in preventing head syn toms following the use of quinine, led us to try t remedy at the hospital, and I ventured to present t results of its use. Inasmuch as the formula for t preparation was distinctly and clearly given, and c manner of using it, I ought not to be held responsil for the ill effects of Merck's or any other preparati of hydrobromic acid.

"M. D." "regrets that we have not an offici preparation of dilute hydrobromic acid." Until have such an officinal preparation we cannot do bet than use the preparation made according to Foth gill's formula, a preparation so simple that any dr gist can make it.

Further employment of this medicine but confir my former favorable opinion of its merits, and furt observation of the uncomfortable "head symptom of cinchonism convinces me that we should emp *something* to prevent such manifestations.

For a statement of the therapeutic use of hyd bromic acid I would refer to the Oct. number of *American Journal of Medical Sciences*. A writer the January number, 1875 of the *American Journal Medical Sciences*, in speaking of Dr. Hammond's Dr. Roosa's experiments with quinine, which sh that sulphate of quinine causes hyperæmia and cong tion of the brain, adds: "And we have had un treatment cases of amaurosis, sometimes utterly irre diable, occasioned by the too free use of quinine."

If some cases of amaurosis from the use of quin have been recorded, we may well believe that t are more cases that have not been recorded, so that continued use of large doses of quinine not only ca uncomfortable head symptoms, but irreparable inj to the organs of sight and hearing.

W. E. FOREST, M.D

PRESBYTERIAN HOSPITAL, March 5th, 1877.

COLEMAN'S MULTIPLE WEDGE IN TH TREATMENT OF STRICTURE.

THE following correspondence will explain itself:

AUGUSTA, GEORGIA, Feb. 17th, 1877

DR. AXEL IVERSON, *Copenhagen, Denmark.*

MY DEAR SIR:—In your review of the dise of the urethra in Virchow's *Year Book* for 18 you do me the honor to notice my multiple we principle in the treatment of stricture. Your c ment is as follows: "Recommendation of the troduction of several thin bougies alongside of e other for gradual dilatation according to the w known manipulation of Béniqué." From this I that you have mistaken the idea of the princip intended to convey. My knowledge of Béniq method is traditional, as I have never seen his m graph. He uses a large number of instruments, *after the other*, and *not side by side*, as I do in multiple wedge.

In proof of this assertion I make the following tract from a review of his little book, in the M number of the *Archives Générales de Médecine*, 1 p. 390: "He introduces into the urethra a l gie, whose volume varies according to circumstan As soon as it has penetrated it is *withdrawn*,* an

* Italics my own.

re voluminous one introduced. Thus *in succession* ee or four bougies, each larger than the other, are ployed in the space of two or three minutes. The xt day he introduces the bougie which had en last used on the preceding day, and several ers, increasing in size in the space of some minutes. us he continues every day until he succeeds in the roduction of the largest bougies, which are not rmitted to remain in the urethra for a longer riod."

To quote from my article, I say: "It ought to be a f-evident proposition that it is easier to introduce *gly* the component parts of a wedge, than to introce it as a whole. Take, for example, a No. 12 ical bougie, even capillary at its point, and attempt introduce it into a stricture, where is the point of ction and resistance? Is it not around the entire cumference of the stricture? Diminish the size of instrument and in a direct ratio you diminish the ount of resistance. After having passed into a icture one of these (Gouley's) whalebone guides,* second has to overcome the friction and resistance but one-half the circumference of the stricture and line of contact with the other bougie. Now that have passed these two, we have a groove in front d behind them through which we can readily pass third and fourth, having now to overcome the istance of but one-fourth the circumference of the icture and the *two lines of contact* with the instruents already in position."

The application of this principle to the "continus method" of dilatation surpasses all other treatnt known to me.

Very respectfully,

JNO. S. COLEMAN, M.D.

LEUBE'S MEAT SOLUTION.

TO THE EDITOR OF THE MEDICAL RECORD.

::—You will oblige many of your readers, who are subscribers to "Ziemssen's Cyclopædia of the ctice of Medicine," by giving publicity to the mula below, for the meat-solution recommended by be in his article on "Diseases of the Stomach and estines," contained in the seventh volume of that rk. A note appended to the article by the transr unfortunately contains an important error. The at is *not* digested with a strongly acid solution of *sin*; in fact, Leube expressly states in the *Berliner inische Wochenschrift*, No. 17, 1873, that the use of psin imparts so offensive an odor of vomited matto the preparation as to render it useless for diec purposes. The formula as there given is as lows:

"Take 1.000 grammes of beef, free from fat and e, put into an earthen or porcelain jar, and add 00 c.c. of water, and 20 c.c. of pure hydrochloric d. After placing the jar in a Papin's digester, w the cover tight, and boil from ten to fifteen rs, stirring occasionally during the first few hours. n remove the contents of the jar to a mortar, and the mass until it has the appearance of an emuln. Boil again for fifteen or twenty hours without ing the cover of the digester. Add pure potassium onate until the mass is nearly neutralized, and then porate to a pulpy consistence."

At the time of the translation of Leube's article in Cyclopædia, I was unaware that this meat-solution for some time past been successfully prepared by Fred. Hoffmann, apothecary, 797 Sixth Avenue, corner 45th Street. The jars imported from Germany have failed to give satisfaction, partly because many of them have become spoiled, and partly because in others the process of emulsification has been imperfectly effected. Mr. Hoffmann has made some changes in the formula, which may be regarded as improvements. He adds only one-tenth water instead of equal parts, and omits the final evaporation in order to avoid exposing the solution to the air. He also substitutes the sodium for the potassium carbonate, as less likely to irritate the stomach, and continues the boiling each time for a considerably longer period. The result is a complete and not unpalatable emulsion, which will keep perfectly in the sealed vessels as long as three weeks, and even longer if a little salicylic acid have been added. Representing, as it does, the *entire* ingredients of the beef used, the preparation certainly deserves a thorough trial as a rational substitute for our innutritious beef-teas and beef-extracts.

A. B. BALL.

38 W. 36TH STREET.

* Or the French filiform elastic bougie.

THE TREATMENT OF WHOOPING-COUGH.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In the month of November I was called to attend two cases of whooping-cough, occurring in two sisters with the respective ages of thirteen and twenty-four years. It was upon the fifth day of the attack. The eldest had coughed the greater part of the two preceding nights, and consequently had hardly slept at all. The younger sister, though not so severely afflicted, had the previous night, by her mother's count, thirty paroxysms of coughing, and all of them quite severe. Having read Steffen's description of Benz's method of treating whooping-cough with quinine, as given in "Ziemssen's Cyclopædia," I determined to try it. To the eldest I prescribed five grains of the quinia each four hours. To the youngest I prescribed the dose of eight grains to be given twice daily. In these two cases the results were almost marvellous; for the eldest, after having taken sixteen grains, slept all night; the youngest did equally well on the eight grains. The paroxysms after the third day's use of the quinine were not beyond four in number, and at the end of eleven more days I considered them cured. There was no return of the cough after omitting the remedy.

Six weeks later, three more cases of equal severity came into my hands, and under the same treatment did equally well. In all I have treated eleven cases by this method, and each of them have had equally conclusive results; insomuch as to make myself, as well as the patients, well satisfied with the kind of treatment.

DAVID DANA SPEAR, M.D.

FREEPORT, ME., Jan. 31, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 4, to March 10, 1877.

BYRNE, C. B., Asst. Surgeon. Assigned to duty at Fort Duncan, Tex. S. O. 40, Dept. of Texas, March 2, 1877.

SHANNON, W. C., Asst. Surgeon. Relieved from duty at Fort Duncan and assigned to temporary duty at Fort Clark, Tex. S. O. 40, C. S., Dept. of Texas.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending March 10, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
March 3.....	0	5	82	3	7	48	0
" 10.....	0	5	90	3	7	57	1

THE HEALTH OF SCHOOL-CHILDREN.—At the regular monthly meeting of the East River Medical Association of this city, held Feb. 13, 1877, the following preamble and resolutions were adopted unanimously:

Whereas, Of its importance in protecting the health of school-children, and promoting the interests of school sanitation, we earnestly recommend the bill introduced by the Hon James W. Gerard, providing for medical Supervision of the Public Schools in the city of New York.

Resolved, That the East River Medical Association deems it necessary that additional safeguards be adopted to protect the health of children in the Public Schools, and will unite with the Medico-Legal and other medical societies in petitioning the Honorable Legislature for the passage of the bill.

Resolved, That the Secretary be directed to transmit to the members of the Legislature from the City and County of New York a copy of these resolutions, and that they be earnestly requested to do all in their power to further this measure.

PROPHYLACTIC FOR VENEREAL DISEASE.—Pavesi recommends the following as a prophylactic lotion against venereal disease:

	Grammes.
℞. Chloral hydrat.,	
Acid. salicylic.,	
Sodæ Sulphit.,	
Glycerin.....āā	1.50
Aquæ.....	4.
Alcohol.....	1.00

M.

The ingredients to be mixed and maintained at a gentle heat till dissolved, then filter.—*Giornale Italiano delle Mal. Vener. e Selba Pelle.*

SCARLET FEVER.—A correspondent desires answers to the following questions:—Can there be an epidemic of scarlet fever in which the absence of eruption is the rule; an appearance of eruption but occasionally? What, if any, is the pathognomonic of scarlet fever? What character as an infectious fever has scarlet fever? What character as a contagious disease has scarlet fever? Has scarlet fever an invariable natural course? If so, what is its duration? Is it probable that during an epidemic visitation in a town of twelve thousand inhabitants, but one hundred cases would occur, and their occurring would be in different and widely separate houses, without communication between the inmates of the several houses? Is it probable that having entered a house the scarlet fever will fail to attack the majority of the inmates who had never been sick with scarlet fever? Is it probable that an epidemic of scarlet fever can occur in the midst of twelve thousand inhabitants and only one hundred cases occur, and consuming four to eigh weeks in occurring? Is it probable that one hundre cases of scarlet fever can occur in such a number o inhabitants, and only one of the number die? Wh is the lowest mortality of (rate) scarlet fever?

NEW YORK PHYSICIANS' MUTUAL AID ASSOCIATIO —The eighth annual report shows the followi figures:

The total number of members during the year w 338; died, 7; dropped from the list for non-payme of dues, 5; present number, 326.

The permanent fund (November, 1876), amounts $3,428.60, invested in United States bonds, and plac in a trust company.

As a matter of interest to members, a concise stat ment of the total receipts and expenditures of the A sociation since its organization in July, 1868, is a pended:

Total amount of assessments collected....	$14,202
" " paid to families of deceased members.....	11,740
Donated to permanent fund, or passed to account of contingent fund, as required by by-laws	2,462
Total expenses since July, 1868.....	1,038
Permanent fund now amounts to.....	3,777

It will be seen from the above statement that the A sociation is in a healthy financial condition; tha large amount of money has been collected and d bursed; that the distribution is prompt and satisfa tory; and while all possible economy is practised the items of expenditure, the permanent fund is slow but surely increasing.

With no salaried officers, and the free use of t council-room of the Academy of Medicine, where t meetings of the Board of Trustees are held, the m items of expense have been for printing, postage, a special services.

Dr. Mark Blumenthal is President, and Dr. Dav Magie, Recording Secretary.

DR. D. H. KITCHEN has resigned as Chief of Staff Charity Hospital to accept the appointment of Me cal Superintendent of the N. Y. State Inebriate A lum, at Binghamton, N. Y.

MASSACHUSETTS CHARITABLE EYE AND EAR FIRMARY, BOSTON, MASS.—The annual report of t institution, recently published, shows a steady incre of patronage for the past ten years. During last y 8,452 cases were treated, and of these 413 were ho patients. Besides other interesting features, the re contains a statistical account of fifty operations cataract by Von Graefe's method. The infirmary no private rooms, and its patients come solely fr the ranks of the poor. The following gentlem compose the staff of surgeons: Drs. Hasket Der Henry L. Shaw, F. P. Sprague, B. Joy Jeffreys, Rol Willard, and Clarence J. Blake.

SCIENCE VS. FRAUD.—A case was recently tried Albany in which damages were claimed by a per on account of an alleged loss of the sight of one caused by an accident on a highway which was in unfinished and dangerous condition. The princi line of defence rested upon the assumption that no of sight was sustained, a fact which was convincin proved to the jury by Dr. Charles A. Robertson, of t city. The verdict was in accordance with the fact, and the town of Halfmoon, in which the hi way was situated, was saved the sum of ten thous dollars damages.

Original Communications.

THE DANGER ATTENDING THE INTRODUCTION OF FLUIDS INTO THE NASAL PASSAGES.

By ALBERT H. BUCK, M.D.,

NEW YORK.

As long ago as 1869 Dr. Roosa, of this city, called attention to the fact that the use of Weber's nasal douche sometimes gives rise to serious inflammation in one or both ears. Since then other surgeons in this country (Knapp and Pardee, of this city, Shaw, of Boston, and Bowen, of Hartford) have reported a number of cases in which the same unfavorable results followed the employment of this method of treatment. In spite of these warnings, I have reason to believe that the nasal douche, or some substitute for it, is still widely recommended by physicians to their patients; and I therefore do not consider it out of place at the present time to add my testimony to that already given in favor of greater caution in the use of this and similar methods of introducing fluids into the nasal passages.

The prevailing belief seems to be that, if certain precautions be observed, the douche may be safely employed. These precautions are: the fluid must be sufficiently warm; it must not be introduced under too great pressure; there must be no obstacle in its way as it passes into one nostril and out through the other; and, finally, the patient must be distinctly warned not to swallow during the continuance of the procedure. If during this time no fluid finds its way into either tympanic cavity, the danger of exciting an inflammation of this part of the ear is generally believed to be at an end. It is evident, therefore, from this belief, and from the precautions which have just been enumerated, that the chief, and apparently the only, danger is thought to be connected with the entrance of a part of the fluid into the middle ear *during the actual use of the douche;* in other words, the danger is supposed to be at an end *when the pressure upon the fluid is withdrawn.* Many physicians have accordingly abandoned the use of the nasal douche, and employ in its place the posterior nares syringe, the atomizer, or the "snuffing-up" process, believing these to be quite safe methods, as little or no pressure is used. Shaw, however, has recently shown that the posterior nares syringe and the snuffing-up process may also give rise to ear trouble. It is evident, therefore, that the theory very generally adopted in explanation of the aural complication is not the correct one for all cases.

My entire experience in this matter is summed up in the briefest possible manner in the histories of cases appended to these remarks; and it will there be seen that *the introduction of a fluid into the nasal passages in a sufficiently large quantity to bathe the orifice of the Eustachian tube* (no matter by what method it is introduced) *is not wholly free from the danger of setting up an inflammation of the middle ear.* As stated by the patients themselves, the fluid is forced into the ear by the act of blowing the nose *subsequently* to the introduction of the fluid into the nasal passages The depression corresponding to the orifice of the Eustachian tube is adapted by its very shape to retain, for a short time at least, a drop or two of the fluid which has been made to bathe its lips. From this position the adherent drop of fluid is undoubtedly forced up into the cavity of the tympanum, immediately the patient supplies the necessary *vis à tergo* by blowing his nose, which patients are instinctively led to do very soon after the employment of any of the methods mentioned above.

So far as I am aware, no cases have as yet been reported where inflammation of the middle ear followed the use of the atomizer, the spray being introduced either by way of the naso-pharyngeal space or by way of the anterior nares. If a *sufficient amount* of spray, however, be introduced, I cannot see why the danger is not just as great under these circumstances as when the other methods are used. Instantaneous spraying can simply cover the entire mucous membrane with an exceedingly thin layer of fluid, and consequently must be a perfectly safe proceeding; but continuous spraying, kept up for a quarter of a minute or half a minute, must introduce into the nasal passages as large a quantity of free fluid as would, for instance, the snuffing-up process. As regards the *quality* of the fluid used, all the solutions generally employed—simple water not excepted—seem to be more or less irritating to the mucous membrane of the middle ear, though solutions of salt appear to produce the most violent forms of otitis media. The acute attacks of inflammation of the middle ear, which are so common after bathing in salt water, are probably to be explained in the manner described above; the bather dives, swims under water, and in one way or another introduces quite a large quantity of salt water into the nasal passages; and upon reaching the shore one of his first acts is to clear out his nasal passages by blowing the nose forcibly. In this way some of the salt water finds its way into the middle ear.

It is greatly to be desired that those physicians who have made extensive use of these different methods of bathing the nasal passages should give us the exact proportion of cases in which disturbances in the ear have followed the treatment. Such a statement would show more accurately the *degree* of danger incurred than does such a report as the one here submitted.

Many will be very likely to ask themselves the question: If these different methods of treatment, which we know by actual experience to be often beneficial, are attended with danger, what is left for us to do in the treatment of these annoying and obstinate catarrhal affections? To answer this properly would lead me too far. I would say, however, that my own preferences have induced me to employ, almost exclusively, the so-called swabbing method, the applications being made to the naso-pharyngeal mucous membrane only, and the remedy used being nitrate of silver, in solutions of varying strength (from gr. xx. to gr. xlv. to the ounce of water). To my knowledge not a single unfavorable result has ever followed the use of this plan of treatment.

Case I.—1871. Male; ætat. circa 40. Snuffed up some water to which a little salt had been added. Almost immediately afterward he was seized with a severe pain in one ear. Acute purulent inflammation of middle ear. Rupture of membrana tympani. Otorrhœa lasting a few days. Recovery without appreciable loss of hearing.

Case II.—1873. Male; ætat. 19. Consulted a physician for naso-pharyngeal catarrh. Treatment consisted, among other things, in the injection of a weak astringent (sulphate of zinc) solution into one nostril, and out through the other. In my notes of this case it is not stated how often this procedure had been carried out, but shortly after one of his visits to the physician's office he was seized with pain in one ear. This lasted for two days, but was of only mode-

rate severity. Deafness quite noticeable. Inspection shows evidences of an acute catarrhal inflammation of the middle ear (Shrapnell's membrane red and œdematous; at its junction with posterior superior quadrant of memb. tymp., a small blebs containing bloody serum; œdematous condition of dermoid layer of membrana tympani). Inflammation subsequently subsided without passing into an otitis media purulenta.

Case III.—1875. Male; ætat. 72. About three weeks ago, as he states, snuffed up cold salt and water into the nostrils, *and afterwards blew his nose.* Since then has been quite deaf in one ear. Had pain in the ear the same day, and occasionally since. Examination reveals evidences of a subacute otitis media catarrhalis. (Patient not seen again; he lived at a distance from the city.)

Case IV.—1875. Female; ætat. 20. Purulent inflammation of both middle ears of ten days' standing. According to statement of attending physician, pain manifested itself in both ears after use of nasal douche. The pain continued for a short time, and then abated upon the establishment of a double otorrhœa. Inspection shows both tympanic membranes perforated. Abundant discharge of pus. (Case seen in consultation; no further data noted.)

Case V.—1876. Male (a physician); ætat. 34. States that on preceding day used nasal douche with warm salt and water. Observed all the precautions laid down in the books. Both ears soon afterward became painful. In the left ear the pain rapidly became severe. This morning no pain in right ear, and but little in the left. Inspection shows slight congestion of right membrana tympani (peripheral and manubrial portions): on the left side, the congestion is more decided. Later in the day the pain became violent in the left ear, and three leeches were applied. During the night a slight escape of blood from the left ear. The following morning I incised the membrana tympani, and evacuated two or three drops of bloody serum. Relief from the pain. Five days later, a second incision. The subsequent progress of the case toward recovery, of no special interest.

Case VI.—1876. Male; ætat. 63. Upon the advice of some friend, has of late been in the habit of snuffing up water (of the ordinary temperature of the Croton in April) into the nostrils. Has on several occasions noticed unpleasant sensations in the ears after the procedure, but never any real pain until four days ago. Since then the pain in the right ear has steadily increased in violence. Membrana tympani (right) swollen and bulging posteriorly. Free incision gave escape to bloody serum. Marked relief followed. Recovery afterwards took place slowly, the otorrhœa persisting for nearly two months.

Case VII.—1876. Male; ætat. 5. Two days previously a warm weak solution of salt had been injected into the nostrils from behind by means of a posterior nares syringe—the boy at the time suffering from an active naso-pharyngeal catarrh. Almost at once the child complained of pain in both ears. On the morning of the third day, both tympanic membranes being red, œdematous, and bulging (posteriorly), I punctured them, but not as freely on the right side as I should have done. In the evening, incised the right membrane more freely, giving escape to bloody serum. The following day—there having been a free watery discharge from both ears during the night—the pain had entirely disappeared, and recovery followed in the course of a few days.

Case VIII.—1876. Male; ætat. 36. Nasal douche with weak solution of salt used for several days without any unpleasant effects. On one occasion, however, shortly after the douche had been used, patient *blew his nose, and was conscious at once of something having entered one ear.* In less than two hours the pain in this ear had become quite severe. Great suffering during the following twenty-four hours. An incision in the membrana tympani then gave speedy relief. Otorrhœa continued for about a week. Recovery.

Case IX.—1877. Male; ætat. 35. States that two days ago he snuffed up a weak aqueous solution of salt into the nostrils, and afterwards "*blew his nose;*" that he was conscious at the time of something having "given way" in the right ear; that after the lapse of a few minutes the ear began to ache, and that the pain rapidly increased to such a pitch, that he could neither sleep nor eat. Inspection reveals evidences of an active inflammation of the right middle ear, with bulging of the posterior half of the membrana tympani. Free incision giving escape to bloody serum. Pain ceased entirely after the lapse of two or three hours. Free discharge of a watery nature. Subsequent recovery rapid.

Case X.—1877. Female; ætat. circa 30. Has quite recently been in the habit of snuffing up a weak aqueous solution of salt into the nostrils for the relief of a naso-pharyngeal catarrh. On more than one occasion has noticed, after blowing her nose, that some disturbance—associated with a crackling sound—took place in one or both ears. Three days ago (but not, so far as I could ascertain, until several hours had elapsed since the use of the salt water), she began to suffer from pain in the right ear. Pain rapidly increased in severity. Yesterday five leeches were applied. Temporary relief afforded. To-day pain again severe. Membrana tympani bulging superiorly and posteriorly. Incision, giving escape to but little bloody serum. The following day there was decided swelling of the inner half (especially posteriorly) of the meatus, and tenderness over the mastoid process. Two free incisions through swollen tissues of meatus and Shrapnell's membrane, and free incision of mastoid integuments. Decided relief. Subsequent progress of case toward recovery slow. Perforation in membrana tympani healed on the twenty-fifth day of the disease.

A CASE OF PROGRESSIVE MUSCULAR ATROPHY RESEMBLING LEAD PARESIS.

By ALLAN McLANE HAMILTON, M.D.,

ONE OF THE VISITING PHYSICIANS TO EPILEPTIC AND PARALYTIC HOSPITAL, BLACKWELL'S ISLAND, NEW YORK CITY.

Several months ago Mr. N., a Cuban gentleman, came to me with a letter from his medical adviser, Dr. Findlay, of Havana. The doctor's history of the patient is as follows:—"Mr. N., about eighteen months ago, began to experience a tremor in the fingers and wrist of the right hand, together with muscular debility, which caused some inconvenience in writing and carrying food to his mouth, as well as in other movements of the hand. Having on a single occasion submitted to local faradization of the arm (some ten months ago), the tremor was much subdued, and, as was thought, the fingers and wrist were strengthened. It was not, however, until four months ago that the patient returned to put himself under a regular course of treatment.

"*Condition of the patient in July last.*—General health good; no signs of cachexia; no antecedents of specific taint; no lead poisoning. Suffered on two or three occasions, at some years' interval, rheumatic pains and neuralgia in the arm and shoulder of the *left*

side, but never in the *right* side, which is the one now affected. The outer appearance of the right arm showed but little muscular atrophy; the tremor was inconsiderable; the patient could close the hand tightly, but not well grasp larger objects, such as a tumbler, owing to incapacity to maintain the first phalanx of the third, fourth, and fifth fingers extended. The wrist was inclined to drop forwards (in flexion) and outwards.

"On inspection it was found that the *common extensor of the fingers* was considerably weakened, most so in the portion attached to the ring-finger, the weakness being manifested both to voluntary and to electrical contractility. The same condition existed also, though a little less, in the *extensor of the little finger*, and in the *radial extensors*. The contractility was not totally absent, but would vary in degree without apparent cause. The disease continued to progress (notwithstanding treatment), the portions of the *common extensors* losing all excitability to my small Gaiffe's battery, and the extensors of the thumb being also implicated.

"The *left* arm was now examined, and although the patient did not notice any weakness in the hand, some deficiency of electric contractility was observed in the common extensor, especially in the extensor of the ring-finger. The constant current was now used for six weeks without much benefit. The *extensor carpi ulnaris* is now becoming also affected. The patient, however, finds that he can write and perform various acts with the right hand better than before. Within the last week he complains of some pain along the back of the *left forearm* when he has been holding an object in the air, and feels an inclination to relax his grasp." The doctor also gave a history of hereditary trouble which was probably in one case (the patient's uncle) progressive muscular atrophy.

I carefully examined the patient, and found that the right arm was that most affected.

Motor power.—The power of extension of the muscles of the right forearm was lost completely, and on the left side the power of extension of the two middle fingers was to some degree impaired. Flexion was perfect.

Atrophy.—The following muscles were more or less affected and reduced in size:

Extensor communis digitorum, minimi digiti, carpi radialis, longus pollicis, carpi ulnaris, } right forearm.
" communis of the left.

Sensation.—Slightly impaired on the right side. The teeth of the æsthesiometer were separated by a space of about ten centimetres before two points could be appreciated. This loss was not so great on the under surface of the forearm. There was no history of recent pain either constant or neuralgic, nor were there any dysæsthetic sensations.

No fibrillary contractions were observed. There was a slight tremor in the right hand when voluntary movements were made. Electric contractility to a very slight degree was observed in the extensor communis digitorum when a strong faradic current was applied. The galvanic current also seemed to have some influence upon the weakened muscles. The fingers were covered by small flakes of skin, and the nails were crenated, irregular, and evidently badly nourished. This trophic defect disappeared under the use of the galvanic current.

Diagnosis.—In the order I name them I proceeded to dispose of lead paresis, amytrophic sclerosis, cerebral paralysis, traumatic paralysis, progressive muscular atrophy.

That it might be lead paresis seemed reasonable at first, because of the loss of electric contractility, the seat of the paralysis, etc.; but when I bore in mind that the trouble was one-sided at first, that there was a subsequent invasion of the muscles of the other arm, that sensibility was also impaired, and that the patient used neither hair-dye nor drank impure water, nor was exposed to the dangers of lead poisoning of any kind, I was forced to abandon this idea. A species of spastic contraction drew down the fingers of the right hand, and there was some *cumulative* tremor, such as characterizes sclerosis (expressed by a gradually increased tremor, aggravated by will control, and terminating in a species of spasm). This at first led me to suppose that there might be some degeneration of the lateral columns, but as the tremor disappeared and there were no other symptoms of such degeneration, and especially as there was atrophy and muscular paralysis, I dismissed this possibility. The loss of electric contractility, and the limited field of the paralysis, excluded cerebral paralysis; and the fact that the patient had never received an injury, and that the affection was beginning to affect the opposite group, negafied the theory of traumatic paralysis. All that was left was the diagnosis of progressive muscular atrophy; and the subsequent appearance of fibrillary contractions made me quite sure of my decision. The slow progress of the trouble and its site were, however, doubtful points. The individual had not exercised any particular member, and as he was a man of leisure, there was no trade nor occupation in which constant use of the hands or excessive labor was required, that could account for its origin. The hands preserved their contour; there was no atrophy; no prominent thenar eminences; nothing suggestive of the *main en griffe*. None of the muscles of the back were affected, and the deltoids were of good volume and power. The fact that others in his family had suffered, that the disease began on one side and extended to the other, that fibrillary contractions were present, that subsequently I was enabled to get slight, and afterwards stronger contractions of the paralyzed and atrophied muscles, determined me in my diagnosis of this anomalous case. I call it anomalous, because I have been taught, and my own experience convinces me, that this is a very rare seat of progressive muscular atrophy. Protean as is the malady, I have not seen paralysis of the extensors, as a primary symptom, in any one of the twenty-eight cases of the affection I have met with from time to time.

Roberts* considers that the disease, in over one-third of all the cases, begins in the hands.

The trophic phenomena, consisting of exfoliation of the epidermis and the malformation of the finger-nails, though pointing to an injury of the nerve, are beautiful arguments for the peripheral origin of the disease.

123 East Thirtieth Street, Feb. 21, 1877.

ON THE OPEN TREATMENT OF WOUNDS.

By HENRY A. DuBOIS, M.D.,

San Rafael, Cal.

The success of Lister's antiseptic method of treating wounds naturally gives rise to the question whether there may not be an antiseptic method equally certain, and in which the wound shall be hermetically sealed to the air, and yet open to manipulation. The advan-

* Wasting Palsy, p. 127.

tages claimed for Lister's method over all others, are the healing of the wound without the formation of the pus, and consequently the avoidance of the dangers of purulent absorption—also the rapidity of healing. The objections urged against it, are the great nicety requisite in its use, the paraphernalia required, and generally its inconvenience in private practice. Especially are these objections valid in country practice. The surgeon cannot always be armed *cap-à-pie* with spray producers, macintosh, gauze, rubber sheeting, carbolized cotton, etc., nor is it pleasant for him to announce his presence in advance by the carbolic acid odors hanging about his person. Yet he must submit to these inconveniences for the good of his patient, if no equally successful mode of procedure can be devised. While making some experiments on disinfectants some months ago, I was called to treat several lacerated and contused wounds, just the class of wounds to give rise to sloughing and to the formation of large quantities of pus. I give two or three cases in illustration:

Case 1.—Mr. A., æt. 70, while working a moulding machine had his arm caught, and one of the two knives on the wheel ripped up the arm from the bend of the elbow to the wrist, cutting the radial, ulnar, and interosseous arteries, and rolling and mangling the integuments, while the other knife cut across the pronator radii teres muscle. After securing the arteries I tried to bring the integuments together, but a space of some five inches remained uncovered. I syringed the wound out with tepid water containing one-fortieth of carbolic acid, and with a spatula filled the wound with the hydrocarbon obtained from the evaporation and clarification of petroleum, and sold under the names of vasoline, cosmoline, etc., to which ten grains of salicylic acid had been added to the ounce. This was thickly smeared over the integuments, and the whole covered by lint with a piece of oil-silk over it, and tightly bandaged. The dressing was removed at first twice a day, then once, and afterwards once in two or three days. A line of separation formed on the integuments, and about one-third died and was removed by the scissors; a portion of the white fibrous tissue sloughed and came away also; but what I would call special attention to is, that throughout the treatment there was no odor and no perceptible formation of pus. The dressings were at first soaked with reddish serum, and this gradually lessening in quantity, granulations rapidly sprang up from the bottom of both wounds, and soon they were closed. I first saw this case Sept. 29th. Oct. 17th the wounds were almost entirely healed, and the patient left for the East overland—about nineteen days in all. It must be remembered that one-third of the integuments and a large portion of the white fibrous tissue sloughed, and that the pronator radii teres muscle was cut across and pounded so that its ends could not be united, and a cavity some two inches deep by three wide was left to be filled in.

Case 2.—B., æt. 4, while playing, was kicked by a horse. The horse's hoof struck the middle of the forehead obliquely, making a wound extending nearly across the forehead and raising the integuments, muscles, and perieranium, and rolled them over to a point half way to the vertex. The child being thrown over on the ground the wound was filled with dust. After removing this as well as I could, I found portions of the frontal and both parietal bones laid bare. Washing out the wound with water containing one-fortieth of carbolic acid with a syringe, more of the foreign matter was removed, but a good deal remained bruised into the periosteum that could not readily be gotten out. The wound was now filled with the vasoline ointment, ten grains salicylic acid to the ounce, and the flaps brought as near together as possible, by long pins, and adhesive strips applied over the head, and over all a close fitting skull-cap. I first saw the case on the 10th of the month, and on the 7th of the next month the wound was entirely healed. The bones of the skull remained bare for some time, and as the child was restless it was found difficult to paralyze the action of the occipito-frontalis, which, being divided, tended to keep the edges of the wound apart, otherwise the healing would I think have taken place in half the time.

Case 3.—C., æt. 50, was filling a shell, when it exploded, and lacerated and bruised the ball of the thumb, besides more or less injuring one of the fingers. When I saw him the muscles on the inside of the metacarpal region of the thumb looked like a thick clot of blood, with three cuts, extending down nearly to the bone, in which the finger could be laid. Vasoline ointment of the same strength as the above was at once applied, and he was directed to change the dressing twice daily. He presented himself for the first time in about a week, with the wound nearly, but not quite healed. He said that he had not noticed any matter, other than the oozing of a little serum, and that he had been at work some three days at his trade—that of a painter, and had felt no pain in the hand.

I have used this dressing in a number of cases of minor amputations, etc., but the cases above cited are perhaps sufficient to show its general action. I have had no opportunity to apply it in a capital amputation, and I therefore call attention to these substances, *i.e.*, vasoline and salicylic acid in combination, hoping that they may thus receive a more extensive trial than I am able at present to give them. I would add that no precautions are used to exclude germs other than always keeping a thick layer of the vasoline ointment over the wound. After the first washing out with carbolic acid water the wound is not again touched with water. In the case of a major amputation, I should wash out the wound with the carbolic acid water, let it dry for a few moments, and then fill it with one or two ounces of the vasoline ointment, bringing the flaps together in the usual manner, leaving the corners open. Every day I would inject the ointment by means of a syringe—slightly warmed so as to run freely. I am inclined to believe that recovery will be as rapid as when Lister's method is adopted, and that all dangers of purulent absorption will as certainly be guarded against, and if so, certainly it is more available in general practice. There is no odor to the vasoline ointment, none to the wound, and no odor is left on the hands or clothes of the surgeon. In conclusion, I would add that I believe this mode of dressing is particularly adapted to gunshot wounds. The ointment in these cases should be slightly warmed, and introduced daily by means of a syringe, the parts being kept as near as possible in the position that they were in when the wound was received.

I will, with your permission, in a future number of The Medical Record give a brief account of some new uses of vasoline and salicylic acid in other departments of medicine.

Alumni Association, Medical Department of University of New York.—The following officers have been elected for 1877: *President*, James H. Anderson; *Vice-Presidents*, William A. Hammond, John R. Dickson, Josiah Gautier, S. Fleet Speir, J. J. Peterson, Thomas S. Bahan; *Treasurer*, Dixon Varley; *Secretary*, Frederick R. S. Drake.

PERITYPHLITIS—OPERATION ON THE ELEVENTH DAY—RECOVERY.

By J. C. ADAMS, M.D.,

LAKE CITY, MINN.

Mrs. J. H.; Irish; æt. 40. Mother of eleven children; youngest six years. Jan. 27th ult., rode eight miles on rough road while menstruating. That night she awoke with slight pain in right flank, which continued the succeeding nights. Monday (3d day), assisted in washing. Wednesday, 31st, saw her for the first time. Pulse 90, tempt. 100°. Tenderness on deep pressure in right iliac region. No tumor. No tympanitis. Pain only on motion. Bowels moved day before. Suspected nature of disease impending. Prescribed morph. sulph. ¼ gr., every three hours, and warm water dressing.

As the family did not think the case serious I did not visit her again until the evening of Feb. 7th. In the meantime I was daily informed that she was "comfortable, but weak." On the 6th, being told that her bowels had not moved for several days, and that, though she did not vomit nor "bloat," she was greatly troubled with "gagging," I prescribed calomel gr. v., which operated freely, with relief. Feb. 7th, sent for in haste, patient having had a severe chill and complaining of "a burning in her right side." Temp. 104°. Pulse 100, and feeble. Very firm pressure detected a small, deep-seated, ill-defined induration. Point of greatest tenderness one-half inch above, and one inch to the inside of anterior superior spinous process of ilium. Point of greatest dulness the same. This was the uniform result of oft-repeated palpation and percussion. Dr. Vilas, of Lake City, administering chloroform and rendering other valuable assistance, I divided integument, fat, external and internal oblique muscles, and the fibres of transversalis attached to outer third of Poupart's ligament. An incision was made one inch above anterior superior spinous process of the ilium, and parallel with Poupart's ligament, three inches. I was now able to distinctly feel and partly define the induration, but could perceive no fluctuation. Introduced No. 1 aspirator needle, attached to a small syringe, three times into tumor. First and second time towards its borders, each time obtaining a few drops of pus. Third time into point of greatest tenderness and dulness, and withdrew a teaspoonful of fetid pus. I made a one-half inch incision over this point, inserted the end of my finger, and bored through into what felt like a cavity lined by a villous membrane. I did not explore it laterally. *Extremely* fetid pus gushed out in a continuous stream, and continued to ebb with each inspiration while wound was being dressed. The pubic third of wound was closed by suture, and antiseptic poultice applied and continued one day, being frequently changed. After that carbolized oil (℥ ij.—Oi.) on lint was substituted. For the first five days a female catheter was daily inserted in the hole through transversalis. For the first week wound was dressed four times daily, every dressing being preceded by a thorough syringing with carbolic solution (fl. ℥ i.—Oi.). Next day after operating (9th) temp. had fallen from 104° to 100°. Pulse from 130 (at time of operation) to 110. Next morning (10th) temp. 98°, pulse 110. Nothing of note occurred until fourth day, when peristaltic action of bowel at base of wound induced a painful dragging sensation which woke her frequently during the night. An enema, producing a free stool, ended this trouble. A deep inspiration at this time induced a similar pain—"stitch in the side." It recurred slightly two days later, when bowels moved, and was not again complained of. Suppuration was established in the wound on the third day, and the healing process was continuous. On the eleventh day after operation (the last time I saw patient) the wound was reduced to a mere sinus communicating with central cavity. Was able to sit up while her bed was being made, and functions all normal. Yesterday (22d) her husband told me the wound was almost healed, and that she was fast regaining her usual health. The important points in this case, I believe, are the following: The absence of visible tumor. The reliability of the indications furnished by percussion and palpation. The value of aspiration as a guide to the point of puncture. The evidence of the near approach of death (tem. 104°, pulse 130, and very feeble) preceding rupture of abscess. The speedy subsidence of all dangerous symptoms after operation.

Reports of Hospitals.

THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

Notes of Practice and Peculiarities of Treatment.

The medical wards of this hospital are under the sole charge of Dr. Wm. Pepper, Professor of Clinical Medicine in the University Medical School, and the modes of treatment given below are all peculiarly his own.

ACUTE AND CHRONIC RHEUMATISM.

Quite a number of these cases have been under active treatment in the wards during the past winter. Salicylic acid has been used as an antiphlogistic in the reduction of temperature with very marked success. The dose in cases of acute rheumatism is ten grains every two or three hours, given either in powder, or diffused in mucilage of acacia. A very decided reduction of temperature is usually shown in several hours. In chronic rheumatism ten-grain doses are given thrice daily with the same effects. Salicylate of soda has also been used in these chronic cases, but with no very positive results as yet. Salicin has not yet been tried.

ACUTE ANGINA.

Salicylic acid acted most admirably in a case of very severe acute angina attended with a great rise in temperature. Ten-grain doses of the acid given at intervals of two or three hours reduced the patient's temperature from 105° to 99° in the space of two days. The fall of temperature, it is needless to say, was permanent.

CHRONIC DYSENTERY.

Two obstinate and well-marked cases of this disease have been promptly and permanently cured. In one instance the treatment was by the late Prof. Simon's proposed method, by "gravity injection." Dr. Pepper was the first to make use of this method in this country. The apparatus is simple, consisting of an ordinary funnel with an elastic tube attached some six or eight feet in length. The liquid to be injected is poured into the funnel. The height at which the funnel should be held depends upon the amount of resistance to be overcome, and the quantity of the injection. In the case under consideration a solution of nitrate of silver, varying in strength from eight to ten grains to the quart of water, was introduced into the

bowel with most gratifying results. At first a pint, and later a quart of the solution was introduced once or twice daily, afterwards once in two days. The injection was retained for from five to ten minutes. Its retention gave no pain, with the exception of a slight burning sensation when the stronger solution was injected. The stools became formed and less bloody very soon after the inception of the new treatment, and in three weeks or so the patient was completely convalescent.

The second case refused entirely to improve under this kind of treatment, but yielded completely to a *pure milk diet.* A quarter of a grain of calomel and ten grains of bismuth were given three times a day for the space of two days before beginning the pure milk diet.

[The "gravity injection" has also cured a case of intussusception in a child, completely disengaging the invaginated bowel.]

TYPHOID FEVER.

Dr. Pepper's successful treatment in cases of typhoid fever has been the following: Beginning with the second week of the disease, when the abdominal symptoms of pain and diarrhœa have fully set in, one-quarter of a grain of nitrate of silver with one-twelfth of a grain of belladonna, and from one-sixth to one-half of a grain of the watery extract of opium are exhibited in pill form three times a day after meals. Under this treatment diarrhœa and tenderness have diminished, and patients have made very rapid recoveries. In most cases very little stimulus was used. Milk and beef-tea were the only articles proper of food allowed. Quinine was given with other tonics. Fever was reduced by frequent spongings of the skin of the entire body with cool water. When the high fever resisted sponging, cool baths were employed. Dr. Pepper does not by any means approve of indiscriminate bathing in typhoid fever. He holds that the best time for the use of the cold bath is during the early stage—during the first week or ten days in cases where the temperature rises above 103°, and is not controlled by frequent spongings, large doses of quinine (quinine has acted most invaluably as an antiphlogistic both in this and in other diseases), diaphoretics, etc. But when the fever in subsequent stages runs high it is of the nature of a sympathetic fever, largely dependent on the amount of intestinal lesion, and hence cold baths are both less valuable and attended with more risk. Both with the hope of limiting the amount of the specific follicular catarrh of the intestines, and the intention of favorably modifying the secondary sympathetic symptoms, the nitrate of silver has been used. Cold bathing cannot be regarded as a mode of treatment with propriety. It is, however, a very valuable adjunct, applicable in certain emergencies, but its general use in this disease has been overestimated by German writers. In the careful study made in this hospital during the past year, it has also been shown that the temperature laws laid down by Wunderlich and some other statistic writers are far too absolute. These points will be more fully considered in a memoir to be soon published upon the results of observations upon the typhoid fever cases of 1876.

PHTHISIS.

The treatment of localized cavities in the lungs by injections of dilute Lugol's solution, originally introduced by Professor Pepper, has been much discussed in the medical press. Further experience with it has confirmed the belief that it is most valuable in some cases as favoring the contraction and cicatrization of cavities. It is in no case attended with any dangerous consequences. Thus, it does not cause elevation of temperature, hemorrhage, or increase in cough. More recently Lugol's solution has been injected into lung-tissue in cases of incipient phthisis. In one case, *recently discharged from the hospital*, the treatment was pursued nearly every week for a number of months. The disease was arrested, the physical signs disappeared, the general symptoms greatly improved, and the patient was discharged APPARENTLY WELL. In another case, still under treatment, the effects of each injection appear distinctly favorable. Dr. Pepper does not by any means regard the question as having reached a point where positive conclusions can be stated. He contends, however, that it has been shown that this mode of treatment is without danger; that in some cases at least it does good, and that it is deserving of thorough investigation. The probable mode of local action of iodine and other alteratives has been discussed in part previously, and will be made the subject of a memoir at an early date. The strength of the solution used for injection varies from one part of Lugol's solution to five parts of water, all the way up to equal parts of each.

Progress of Medical Science.

ON THE USE OF WARBURG'S TINCTURE.—Dr. Broadbent, of St. Mary's Hospital, London, claims that he has used Warburg's tincture with great success, believing, indeed, that he has saved life by it in several instances. Its efficacy he attributes to quinine, which, though present in the small proportion of nine and a half grains to the ounce, is aided in its action by powerful aromatics. To render the tincture thoroughly efficient it should be given without dilution, at intervals of two or three hours, during which time nothing should be taken but a little beef-tea or brandy, and this only if required by the state of the patient. The applicability of the remedy is to those cases where there is no organic disease necessarily fatal and where the local inflammation is inadequate to produce the symptoms, but the nervous system is overwhelmed by a poison, as in malignant remittents, or perhaps by pyrexia simply.—*Practitioner*, February, 1877.

ANALYSIS OF ONE HUNDRED AND NINE CASES OF RHEUMATISM, TREATED WITH SALICYLIC ACID AND SALICINE.—Dr. Brown, late house physician at the Boston city hospital, has furnished a tabulated statement of all the cases that were treated in the hospital with salicylic acid or salicine since February 12, 1876, at which time this method was first inaugurated there. Cases of undoubted chronic character are excepted. The average amount of acid taken to produce relief was one hundred and fifty-four grains; the quantity varied from thirty to two hundred and ten grains. The average of the time at which relief was effected was 1.46 + days, varying from three hours to four days. The average time to complete cessation of pain was 2.85 + days, varying from twelve hours to fifteen days. The amount required to produce complete relief from pain and mobility of the joints was 531.22 grains to each patient; in each attack was 343.73 grains. The average time during which the acid was taken by each patient was 6.22 days, varying from one day to thirty-one days.

Two cases died, one from pericarditis and one from cerebral complications. Eighteen cases had one relapse, three had two, and one had five while in the hospital. The universal result of the acid, when

given in full doses, was to cause a fall of the temperature. On the pulse and respiration the effect was less marked; in fact, the pulse often increased for a time, in debilitated subjects. The patients were usually placed upon the treatment by the house physician soon after entrance, ten grains being given hourly while awake. The practice varied from this in some instances. In Dr. Blake's service pills containing three and one-half grains each were made with honey or molasses, and in this form the acid was best taken. The number of cases treated with salicine was too small for instituting comparisons. In three cases of acute rheumatism, with moderate severity, from five to fifteen grains were taken hourly; the average time, to relief was two and one-third days; to complete relief six and one-third days; the average amount taken was three hundred and forty-six and two-third grains. The average time in hospital was thirteen and one-third days. It is thought that salicine deserves a more extended trial.—*Boston Med. and Surg. Journ.*, February 8, 1877.

A Case of Lithotrity in which Nitric Acid Injections were Employed.—In March, 1875, a police officer, aged forty-five, was admitted into the Liverpool Royal Infirmary, under the care of Mr. Harrison. Upon examination, a single stone was found in the bladder; it was rounded and had a diameter of two inches and a quarter. The urine was alkaline and contained pus. After some preliminary treatment, lithotrity was performed on April 5th, and the crushings were repeated twelve times during April and May. The patient never experienced any unfavorable symptoms, and a good deal of broken-up stone was passed, but as it seemed that fresh phosphatic depositions were taking place almost as fast as the others were removed, Mr. Richardson resolved to use nitric acid injections. On May 27th (two days after a crushing), he had all the urine passed during twenty-four hours collected and examined. Its quantity was sixty ounces, and it contained 74.029 grains of phosphoric acid in the form of alkaline earthy phosphates, and 250.516 grains of phosphoric acid in the form of alkaline phosphates. He then injected into the bladder half a pint of tepid water with two drachms of dilute nitric acid. During the next twenty-four hours seventy-eight ounces of urine were passed, which were found to contain 96.237 grains of phosphoric acid as alkaline earthy phosphates, and 461.94 grains of phosphoric acid as alkaline phosphates. Hence, after the nitric acid treatment, the percentage of alkaline earthy phosphates in the urine was slightly increased, while that of the alkaline phosphates was very considerably increased. The absolute increase of the phosphates was, however, much more marked. On nine subsequent occasions the lithotrite was employed, and on every second or third day afterwards the bladder was injected as before with tepid water and nitric acid. The alkaline phosphates were increased after each injection, and it was also noticed that the fragments passed were more fine triturated than previously. The patient left the infirmary cured on June 21st. The total quantity of broken-up stone collected weighed four drachms. Mr. Richardson thought that the acid stopped at once any further deposition of phosphates, and facilitated the removal of the broken fragments.—*British Medical Journal*, January 6, 1877.

When is the Catheter to be Used for Habitual Retention from Hypertrophied Prostate?—In a lecture on this question delivered in the University College Hospital, December, 1876, Sir Henry Thompson stated that, in order to arrive at a judgment in any particular case, it is necessary to know, first, the amount of "residual urine" habitually present, and, second, the frequency of micturition, particularly at night. In reference to the first point, the physician will of course not always judge from one trial of the catheter. The amount of urine left in the bladder is pretty uniform in most patients, when there is nothing to disturb the function of micturition, such as, for instance, the presence of a stranger, etc. Sir H. Thompson thinks that, when eight ounces always remain behind, the patient should at once commence the daily use of the catheter, but this may be necessary when the quantity is much smaller. It has been laid down as an axiom by some, that so long as the urine is clear, no matter what the quantity retained, no instrument should be employed. A certain amount of *à priori* reasoning may be urged in behalf of such a rule, but it will not bear the test of large experience. It means neither more nor less than waiting for the occurrence of chronic cystitis before we use an instrument. This cystitis is the very condition we wish to avoid, and do mostly avoid by commencing the use of the catheter at a sufficiently early period. In past days, when physicians had only the large metallic catheter at their command, chronic cystitis was a frequent result of catheterism, but it is rarely so nowadays, with the soft, flexible instrument of moderate size, provided it be used at an early period, before considerable accumulation has taken place; the removal of a large quantity being mostly, but not invariably, followed by local and general disturbance. When the residual urine is allowed to reach the quantity of twenty ounces or more, it is seldom that the patient does not suffer rather severely from both chronic cystitis, with purulent urine, and febrile attacks, with resulting debility, whenever the daily use of the catheter has to be commenced. Moreover, at this advanced stage of chronic retention, a slight accident of some kind readily occasions complete, or nearly complete, retention, and then the use of the catheter is imperatively demanded. Under these circumstances, chronic cystitis is almost sure to follow. Hence, in cases of continued and chronic retention, due to slowly advancing hypertrophy of the prostate, the longer the use of the catheter is postponed after the early stage of the malady is passed, the worse will be the symptoms.

The frequency with which the patient passes urine must also be taken into account. It is more important to note whether the patient is disturbed six times in the night or only twice than whether his urine is clear or cloudy, or even whether the residual urine amounts to four ounces or twelve. If he is affected by loss of rest, pass the catheter the last thing at night, and mark the result. If he obtains four or five hours of continuous sleep after the bladder is emptied, he should be taught to pass the catheter himself every night. Moreover, the avoidance of pain and spasm by this treatment makes it sometimes desirable, whatever be the quantity and character of the urine removed. By taking into consideration the different phenomena in each individual case, and giving to each its due importance, a correct judgment can usually be reached without difficulty.—*The Lancet*, January 6, 1877.

New Method of Double Staining.—Drs. Norris and Shakespeare, of Philadelphia, recommend the following solutions as desirable modifications of Merkel formulæ: The red-staining fluid contains carmine, ʒ ss.; borax, ʒ ij.; distilled water, ʒ iv. The blue-staining fluid contains indigo-carmine, ʒ ij.; borax, ʒ ij.; distilled water, ʒ iv.—*American Journal of the Medical Sciences*, Jan. 1877.

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE NEW YORK HOSPITAL.

Again this old and familiar name is destined to associate itself with deeds of active charity for suffering humanity. After an interval of six years the institution which for a century has been so closely identified with the medical and surgical history of this metropolis, has now a positive entity and permanent abiding-place. The reopening of the new buildings on West Fifteenth and West Sixteenth streets was formally signalized by the tasteful and appropriate address of Prof. Van Buren, setting forth the history, objects, and aim of the hospital, followed by a brilliant reception of the members of the medical profession and a large body of distinguished citizens. In connection with the present re-establishment of the institution a glance at its previous history will, we trust, not be uninteresting.

The charter of the hospital dates back to the reign of George the Third, having been granted on the 13th of June, 1771, by the Earl of Dunmore, Governor and Commander-in-chief of the provinces. The first suggestion relative to the founding of a free infirmary was made by Dr. Samuel Bard, an eminent physician and whole-hearted philanthropist of early New York. Dr. Peter Middleton, in an address delivered November 3, 1769, before King's College (since the American Revolution called Columbia), made the following remarks: "The necessity and usefulness of a public infirmary had been so warmly and pathetically set forth in a discourse delivered by Dr. Samuel Bard,* at the college commencement in May last, that his Excellency Sir Henry Moore immediately set on foot a subscription for that purpose, to which himself and most of the gentlemen liberally contributed. His Excellency also recommended it in the most pressing manner to the Assembly of the Province as an object worthy of their attention." Farther on the same speaker foreshadowed what the institution was to be, and every one who knows anything of it is willing to acknowledge that it has nobly verified the prophecy:—"As it is to be on the most catholic and unexceptionable plan, it is to be hoped that it will meet with the countenance and encouragement of every compassionate and good member of society, whatever party or denomination he may choose to be distinguished by on other occasions."

It was not until two years after the charter had been granted that the Governors had collected sufficient funds from private individuals and the State to warrant them in purchasing a site. It originally consisted of five acres, which were purchased of Mrs. Barclay and Mr. Rutgers; and the location was considered most suitable for its purpose, on account of its elevated, airy situation, and other rural advantages, not the least among which was the fine view of the Hudson River on the west. The plot nearly comprised what is now the entire square bounded by Duane, Church, and Worth streets, and Broadway, the easterly line running north and south being a little over one hundred feet from New George street, now Broadway. In order to get an entrance from the easterly side, on New George street (which, although at that time being nothing more than an indifferently kept country road, was still the principal thoroughfare), the Governors afterwards purchased a frontage of ninety feet. The other fronts on Broadway were never in the possession of the Society. At the time of which we are writing the grounds in the vicinity were little better than thickly settled farms, the lots not owned by the hospital on the line of the highway being open, save at what is now the corner of Broadway and Worth street, which was occupied by two or three barns used by some of the down-town cartmen. A portion of these can be seen upon the early print of the diplomas of the hospital. New George street at that time was beautifully shaded by sycamores, elms, poplars, chestnuts, and oaks, and was already beginning to be the favorite drive for many of the aristocracy, who, by the way, mostly lived in the town proper, below the present City Hall Park. Only a few good-sized buildings then stood in the district, among which were Old Trinity Church, built in 1696; the Brick Meeting House in Beekman street, built in 1752; and the St. Paul's Episcopal, now on the corner of Broadway and Fulton street, built in 1765. It will then be seen that the hospital grounds were at first fairly out of town, and that the Governors, in making the selection of the site, had an eye to healthfulness and quiet.

The main or central building was commenced in July, 1773, the corner-stone having been laid with appropriate ceremonies by Governor Tryon. On the

* Dr. Bard practised for more than fifty years in the city, and was the author of a curious volume on "The Malignant Pleurisy, as it Prevailed on Long Island in 1749." He served the hospital as physician for twenty-three years, from 1774 to 1797, and died at the age of eighty.

night of February, 1775, when nearly completed, the edifice took fire, and before the flames could be arrested it was almost completely destroyed. The loss thus sustained by the Society was so great, that, had not the Legislature come to its relief by a handsome donation, the whole project would have been frustrated. The breaking out, soon after, of the War of Independence arrested the rebuilding of the institution, and during the occupation of the city by the British it was, in its incomplete condition, used as a barracks and military hospital. For a long time after the close of the war the general derangement of affairs in the city prevented the actual completion of the building, and it was not until January, 1791, that its doors were formally opened for the reception of the sick. History tells us that the first lot of patients numbered eighteen, three of whom were surgical. No pains had been spared to make the edifice, as a whole, as complete as the knowledge of architecture at that period would allow, and it was admitted to be the best of its sort, not only on this continent, but in Europe. Everything indoors was made to subserve the best interests of the patients, as regards comfort and cheerfulness; the windows looked out upon well-kept grounds, the walks for the patients were marvels of beauty to outsiders, and during the cold months the wards were enlivened by the comfortable blaze of oak and hickory, in large, old-fashioned, open fireplaces.

After the War for Independence, and previous to its formal opening, the hospital, although incomplete, was, nevertheless, used as an infirmary for the townspeople in the vicinity, and occasional lectures were delivered to students of medicine and surgery by the physicians and surgeons of the institution. It also appears that dissections were stealthily carried on about this time, partly upon the bodies of such paupers as had died under treatment, but mostly upon the stolen treasures of Potter's Field and the old Negro Burying Ground. All the care on the part of those interested could not keep these depredations a secret from the people, and the result was eventually the "Doctors' Riot," which took place in 1788—one of the truly memorable occurrences in the early history of the hospital. On the south side of the main building, and from one of the second stories, some one had suspended a partially dissected upper extremity, which, being in full view of a party of boys at play in Duane street, after a while attracted their attention. A cry was raised, "A dead man has been cut up in the hospital, and his arm is hanging out of the window!" Some sailors coming up Duane street from the North River very readily took up the cry, and soon collected a crowd to storm the edifice. Some climbed over the fence, but the main body proceeded to the front entrance. Two or three medical men who were then in the institution fled, but one, a medical student, not being able to do so, crawled up one of the open fire-places. The crowd entered, and, after destroying chairs, bedding, and other articles of furniture, demanded of such of the authorities as had the courage to remain in the hospital the perpetrators of the outrage. Failing of any satisfaction in this respect, they proceeded to smoke out the poor unfortunate who was found in the chimney. It is needless to say that he was soon forced to descend and capitulate to save his life. It was with great difficulty that the institution was saved from the firebrand; and it was not until two or three days had elapsed, during all of which time the anger of the populace smouldered under the dampening arguments of the city authorities, that the disturbance was effectually quelled. Even at the end of that time the instigators of the riot were determined not to be satisfied until a formal inspection of the hospital was made by a number of prominent and respected citizens.

From time to time the hospital had been increased by additions in the shape of extensions and separate buildings. In 1806 an edifice was erected on Duane street for an insane asylum, and was occupied as such until 1821, when the patients were transferred to the Bloomingdale Asylum. In 1825 the deserted asylum was fitted up for seamen, and rebuilt on a magnificent scale in 1853. In 1841 a large building on Worth street was erected; and in 1850 the interior of the main building was remodeled.

From that time until 1869, the hospital maintained its position on Broadway, and was cherished by the citizens not only as a noble charity, but as a precious landmark of Old New York. Its ivy grown walls, rich lawns, and the noble elms which crowned the main entrance made it an object of admiration for the stranger and one of veneration for the citizen.

It soon became evident by lack of funds for carrying out its objects, that the institution must be removed and the property disposed of. The necessity for such a radical measure was resisted for a long time, but was finally acknowledged. The lawn, elms, and buildings disappeared, and the grounds became occupied in due time with huge stores, closing up everything to the margin of Thomas street, which is on a line and continuous with what was once the avenue to the old Main House.

It would be exceedingly interesting to refer to the many changes which took place in the growth of New York during this period of the existence of the hospital, but space will not permit. We hasten to glance at that portion of its history which is more especially interesting to medical men.

The hospital, since its foundation—a comparatively short time ago—has earned for itself a reputation not inferior to that of any other institution of its kind. The late Professor Joseph M. Smith, in an address delivered in 1855, on the occasion of the inauguration of the "New South Building" of the New York Hospital, in regard to this point, truly said: "There has been

no case admitted into the house warranting and requiring an operation, however formidable, which has not here found a surgeon qualified by his knowledge, his eye, heart, and hand, for its performance. Operations of which there were few or no precedents, and so unpromising in their results as scarcely to justify their performance or repetition, have been executed with a skill that elevated the operator to the level of those enjoying the highest European reputation."

In the small operating theatre at the north of the main house, Dr. Wright Post, in 1813, made the first repetition, with a favorable result, on this side of the Atlantic, of Sir Astley Cooper's operation of ligature of the common carotid, for aneurism; it was in the same theatre, in 1817, that the same gentleman tied the first time, with success, the right subclavian artery, for brachial aneurism; it was here, in 1818, that the late Valentine Mott won his reputation as the first ligator of the arteria innominata; it was here, in 1845, that the late Dr. Kearney Rodgers tied for the first time the left subclavian inside of the scaleni muscles for aneurism; in was here, in 1847, that Buck introduced his operation of scarification, as a means of relief in œdematous laryngitis. Aside from all this, the wards of the hospital have been made famous by the teachings of the late David Hosack, John Watson, John C. Cheesman, Alexander H. Stevens, Edward Miller, John A Swett, Joseph M. Smith, Thaddeus M. Halstead, and Gurdon Buck, all passed away—but with their names must ever be associated a reverential remembrance.

The new Hospital buildings are admirably situated, and well calculated to serve the purposes for which they have been constructed. As far as equipment is concerned, there is nothing to be desired; in fact, the hospital is furnished so regardless of expense as to amount to actual extravagance; but this may be considered an error on the safe side, especially so far as it may serve as a rebuke to actual parsimony in other institutions. Although arranged with every convenience for the comfort of the patients, and every necessary for the attending staffs, it is a matter for regret that the compulsory economy of ground-space compelled the multiplication of stories. The latter objection, however, may be counterbalanced by the very commendable care taken to overcome all other unsanitary conditions in and about the buildings; in fact, they are as near perfection as they can be under the circumstances. And now that the hospital has once more thrown open its doors to the sick, the best wish we can offer it is that its usefulness and renown for the future may equal, if not excel, that of the past.

INSPECTION OF DRUGGISTS' WEIGHTS.

This important measure still hangs in the Senate Committee on Public Health, of which the Hon. Wm. N. Emerson, of Rochester, is chairman. If the committee fail to report it, the profession and the public will know upon whom the responsibility rests. We are assured that when the bill reaches the Assembly the professional members of that body will give the matter their earnest attention.

Reviews and Notices of Books.

A Text-Book of Physiology. By M. Foster, M.A., M.D., F.R.S., Prælector of Physiology, and Fellow of Trinity College, Cambridge. London: Macmillan & Co. 1877.

Within the last ten years a great number of text books of physiology have been written, but few deserve attention. Most of these written on the subject of physiology within that period are behind the time. The science of Physiology has entered into an era of positiveness which is as secure as the one upon which mathematical science is founded. The physical methods are used to study physiological problems. This book of Prof. Foster, together with the works of Herman and of Beauvis, are conceived in the new spirit, and commends itself by its completeness and conciseness. Although it cannot be said to contain very much original matter, yet the manner in which the author has dealt with his subjects, and the divisions which he has made between them, constitute no little originality. He has begun his treatise by the study of the blood, taking next the contractile tissues, then the nervous system, and the vascular system, etc. His chapters on muscular contraction are very good, and contain all that not only a student, but a general practitioner could desire. Those topics relative to the nervous system and to the other systems, on which authorities yet differ, he has inserted in smaller text, in order to indicate to the average student that his close attention is solicited only by what is contained in the larger text.

In order to appreciate the immense progress made lately in the study of physiology, let any one compare such a book as this one of Prof. Foster's, or of Prof. Herman's, or of Beauvis', with older works, and he will see such a difference not only in the notions entertained generally, and such a difference in the methods of investigation employed, that the two series of books will appear to treat of two different sciences.

We recommend this treatise to students desirous of gaining some accurate knowledge of physiology, so very necessary to a good physician, and we assure all that it is a very fair work of reference.

Diagnose und Therapie der Krankheiten des Menschen, mit zugrundelegung der Lehren und Recepturen der ersten medicinish-chirurgischen Autoritäten und Anführung von 1,500 Receptformeln im metrischen Gewichte, nebst einem Anhange über Balneologie. Von Dr. Bernard Kraus, chefredacteur der "Allgemeinen Wiener Medicinischen Zeitung."

This work of nearly a thousand pages, by the editor-in-chief of a leading German medical journal, is designed as a compendium of our present knowledge in regard to the diagnosis and treatment of diseases of the human body. Its list of subjects comprises internal diseases, the diseases of women and children, cutaneous and syphilitic affections, diseases of the eye and ear, and surgical diseases, with a description of important operations and their after-treatment. An important feature of the work is the addition to each article of suitable formulæ for prescriptions, many of

iem taken from those in use by "the first clinical hysicians of Europe." Manuals of this kind obiously meet a certain demand, otherwise it is difficult o see why industrious writers like our author should e at the enormous trouble of compiling them. They lways remind us, however, of the casual visitor to a brary in Philadelphia, who, bewildered by the great umber of volumes, inquired whether there wasn't some book that had it all in." To be sure the advance f medical science is so rapid that the majority of our oorly-paid profession find it impossible to keep their braries abreast of recent work in *special* branches, nd manuals upon such subjects must, therefore, be rearded, if not as an unmixed good, at least as a necesary evil. Excellent work in this direction has already een done by our author in his "Compendium of ecent Medical Science," which includes such topics s thermometry, sphygmography, percussion and ausultation, microscopy, electro-therapy, etc. Compeniums of the present character, however, which atempt to deal with nearly the whole of the general ractice of medicine and surgery tend to replace more horough works, and naturally lead to empiricism, to search for a "remedy against a disease," rather than o a careful study of the disease itself. Still, much s we object to the *scope* of the work, we have nothing ut praise for the manner in which the author has arried out his design. The pictures of disease, alhough drawn only in outline, are admirably distinct, while for the thoroughness with which the material is rought up to the most recent stand-point of medical cience, the work is unequalled by any of a like charcter in our own language. For English readers, oreover, the very full list of prescriptions will afford n excellent study of Continental practice, especially n Germany, as well as introduce to their notice many ew remedies with new modes of combining them.

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE NEW YORK CITY ASYLUM FOR INSANE, Ward's Island, N. Y., for 1875.

This annual statistical contribution to periodical literature is accompanied with interesting medical notes nd deductions. Dr. Macdonald, for instance, is atisfied that intemperance is responsible for the menal aberration of the patients in that special asylum ore than all the other causes put together. His exerience is favorable to large doses of hydrate of hloral.

SIXTEENTH ANNUAL REPORT OF THE ALABAMA INSANE HOSPITAL AT TUSKALOOSA, October, 1876.

The report, by Dr. P. Bryce, devotes considerable attenion to the moral treatment of the insane, and claims articular credit for having introduced into the bylaws such exacting disciplinary measures, bearing on urses and other employees, such rigid accountability, s no other institution, public or private, of this or ny other character, can boast of. Manual restraint s an almost obsolete practice in this hospital.

ANNUAL REPORT OF THE NORTHERN HOSPITAL FOR THE INSANE, Wisconsin, Sept. 30, 1876.

The medical superintendent of this institution, Dr. Walter Kempster, is a gentleman who has paid an unusual amount of attention to his specialty in all its amifications. Much of this report is devoted to a etrospective glance at what has been accomplished or the care and treatment of these unfortunates from he earliest Biblical records down to the present day.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 15, 1877.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

IS TRACHEOTOMY JUSTIFIABLE IN DIPHTHERITIC LARYNGITIS?

DR. CHARLES A. LEALE, in answering the above question, considered diphtheria as a malignant and one of the oldest acute infectious diseases; and one in which there was a tendency to the formation of false membrane upon, in, and beneath the mucous membrane of the air-passages. The formation of the false membrane was preceded by inflammation and followed by ulceration, and the exudation contained a virulent poison, capable of reproducing the same disease by inoculation. It had been maintained by some that tracheotomy should never be performed in cases of diphtheria, in which the false membrane had extended below the bifurcation of the trachea, and when the larynx had become so completely occluded that the patient would die asphyxiated if an opening were not made. Tracheotomy was first successfully performed in 1782, by Dr. John Andree, of London. Bretonneau made his first successful operation in 1825, and Trousseau, in the year 1832, reported his first, which he declared was the third successful tracheotomy after the disease had invaded the larynx.

From 1782 to 1844 the histories of 219 cases, with 40 cures, were collected by M. P. Jousset. Dr. Vose, of New York, had collected and reported 1,249 cases of tracheotomy, with 249 recoveries.

Dr. Leale then reported a case of diphtheria in which recovery followed tracheotomy, performed after the false membrane had filled the larynx, extended to the small bronchi, also down the pharynx, œsophagus, and into the stomach. The child, prior to the operation, was profoundly asphyxiated, and before the tube could be inserted with advantage, large masses of the exudate were removed through the opening by means of long, narrow elbow forceps, carried down to the bifurcation of the trachea. Before the tube was inserted, semi-liquid purulent matter was drained out while the child was held by the pelvis, with the head downwards. It became necessary to resort to artificial respiration to restore the child, and it was continued half an hour before breathing was established sufficiently to justify reinsertion of the tube. The extremely dangerous symptoms were prolonged; symptoms of septicæmia were developed; ulcerations and hemorrhages from the wound occurred; nephritis and general anasarca followed; large pieces of false membrane were discharged from the bowels, and from their size and thickness it was believed they were formed within the alimentary canal; aphonia was present; but after a tedious convalescence complete recovery took place, with restoration of the voice.

The patient was a boy, æt. 2 years 11 months. At the time of the operation he was sinking rapidly; the glands of the neck were enlarged, the face œdematous and cyanotic, and there was great difficulty in breathing. Emetics had been administered, steam had been constantly inhaled, several pieces of membrane had been thrown off, but no relief followed. The intervals between the short spasmodic efforts at inspiration were lengthening rapidly. The operation

was performed as low as the upper border of the manubrium, and with but very slight loss of blood. A few minutes after an insertion of the tube, about an hour after the operation, a piece of membrane could be heard flapping against it. The tube was removed, and, after several efforts, the piece was grasped and removed, when it was seen to be about two inches in length, and branched at the lower extremity, showing that it had extended to the bifurcation of some of the smaller bronchi. The tube was then reinserted, a few drops of brandy and water given as often as the child could swallow, and after two hours the breathing became less labored, and the cyanosis less marked. Steam was constantly generated in the room, and the temperature maintained at 98° F. The false membrane, examined within fifteen minutes from the time of expulsion, contained cocco-bacteria.

The first day after the operation the inner tube was removed every half hour and cleansed.

Second Day.—Pulse 120, R. 35. No air passed through larynx.

Third Day.—Pulse 135, R. 60. Hemorrhage from erosion about the wound. Profuse expectoration through the tube. Urine contained albumen in large quantities, epithelial casts, and living bacteria. Evening—Pulse at 7 o'clock, 144, R. 62, T. 106° F. At 9 P.M.—Pulse 135, R. 60, T. 105° F. Tube permanently removed on account of erosions and hemorrhage. The bleeding and gangrenous parts, and the surface of the external wound, were touched with pure nitric acid.

Fourth Day.—P. 150, R. 60, T. 105° F. Entire surface of the body covered with herpes. Profuse diarrhœa, with discharge of large quantities of false membrane.

Fifth Day.—P. 130, R. 28, T. 102¾°. Wound in the neck covered with exudation, which reformed as soon as removed by suppuration.

Sixth Day.—P. 140, R. 62, T. 105⅝° F. Unable to breathe through larynx. Some tendency to closure of wound; momentary dilatation by means of piece of sponge.

Seventh Day.—No apparent indication for reinserting the tube. From the 7th to the 10th day pulse, temperature, and respiration were alarming. On the eleventh day symptoms much improved, and from that date convalescence went on very favorably, and on the twenty-second day after the operation the patient was well enough to call upon Dr. Leale at his office.

From the time of the operation until recovery was complete no medicine was given. His diet at first was milk, bread, and water, as much as he desired, and, after appetite began to return, any easily digested nutritious food was allowed. The room was kept filled with steam, and the temperature maintained at 98° F. for two weeks.

SIMPLE INFLAMMATORY NON-MALIGNANT AFFECTION OF THE LARYNX—TRACHEOTOMY—SPEEDY RECOVERY.

A healthy man, æt. 28 years, got chilled and was attacked with difficult breathing and other croupy symptoms, Jan. 30th. He was relieved by the use of steam, emetics, and gargle. The following day there were marked symptoms of œdema glottidis, and Buck's method of scarification was resorted to with relief. On the third day the symptoms of œdema were renewed, and were not relived by steam, scarification, etc. On the fourth night Dr. Leale was called, but upon arrival was met by the attending physician and clergyman, who said the man had ceased to breathe. The heart, however, was found to be beating. Dr. Leale quickly opened the trachea, inserted a tu and began artificial respiration, and at the end of h an hour had the satisfaction of seeing his pati breathe independently. Within forty-eight hours t œdema of the glottis had so subsided that the tu was removed, the wound healed kindly, the wh exudation in the larynx exfoliated or was absorb and the man was able to be at work within ten d from the time of the attack. The case proved, n only the justifiableness of tracheotomy in cert cases of laryngeal affections aside from diphther but its imperative demand.

OPINIONS REGARDING THE JUSTIFIABLENESS OF TRACHEOTOMY.

Dr. Samuel D. Gross states that the operation is s dom successful, either in diphtheria or croup, but t it is justifiable, because it affords the patient a m easy mode of death than by asphyxia.

Dr. F. H. Hamilton believes that tracheotomy diphtheria, under well-defined conditions, is no lon a question of doubt, but is justifiable.

Oertel believes that tracheotomy in diphtheria indicated only when the local affection preponderat

Dr. Meigs, in his article on pseudo-membran laryngitis, gives the opinion that tracheotomy is a j tifiable operation.

Dr. Charles West, of London, regards the ope tion as scarcely a justifiable proceeding in cases croup, and that when the larynx becomes involved diphtheria the case is utterly hopeless.

Dr. J. Lewis Smith states that when the respirati becomes so embarrassed that lividity occurs the p priety of tracheotomy becomes a serious considerati and that only in exceptional cases will it save li but it renders death more easy.

Vogel believes that the operation in diphthe should be discouraged, because the physician has deal with a general disease, of which the laryng symptoms are only local manifestations.

Niemeyer is of the opinion that the operation, if it is to succeed—and he thinks it rarely does—should n be deferred too long in treatment of the laryngitis f either croup or diphtheria.

Dr. Cohen makes the statement, based upon t published records of more than five thousand cas that the operation is indicated whenever death fr suffocation cannot be averted by any other means.

Dr. E. W. Barclay, St. George's Hospital, Lond regards this operation as justifiable, but to be succe ful it must be performed early.

Bouchut believes that when fits of suffocation developed in croup, the case should at once be treat by tracheotomy.

Dr. Austin Flint believes that the justifiableness f tracheotomy is based upon the affirmative answer the question, Are lives ever saved by it?

Trousseau believes that the operation should tried, no matter what degree of asphyxia may ha been reached; there is a chance of success, provid the local lesion constitutes the chief danger of t disease.

A French surgeon had operated forty times a lost every patient.

Mr. Spence, in an address before the British Me cal Association, claims that the practitioner should n be discouraged by reason of repeated failures to sa life by tracheotomy.

In three instances in which Dr. Leale had be called upon to perform tracheotomy in diphtheria had declined to operate, and two of the patients h recovered.

The French have reported a larger proportion of coveries after tracheotomy than have either English German writers.

Dr. Leale maintained that the operation should not performed early in the disease, inasmuch as it had en seen that an equal proportion of desperate cases covered without it, through the influence of approved edication and continuous inhalation of steam. It as to be acknowledged that when the membrane inded the smaller bronchi and cyanosis was marked, dly a small proportion recovered; but it was also to remembered that the operation itself might add to e gravity of the case by causing deep-seated ulcerans and hemorrhages, and establishing new foci of itation, infection, and gangrene.

CONCLUSION.

The conclusion reached was that tracheotomy was justifiable operation, in undoubted cases of diphtheitic laryngitis, only when death was impending in onsequence of the occlusion of the air-passages. Recovery might follow notwithstanding profound sysmic infection, and, under those circumstances, where here was the slightest opportunity to gain time in hich to overcome the effects of the poison, the opeation, thus removing one obstacle to recovery, was ut performing our last remaining duty.

Dr. L. A. Sayre remarked that he had performed racheotomy *eight* times, and that *five* of his patients ere yet living. One death occurred from hemorrhage roduced by a defective tube; the tube lacerated an rtery, and death resulted from exhaustion due to the emorrhage. The case could not be fairly reckoned s against the operation. Whether the cases were uch as legitimately belonged in the class to which Dr. Leale had restricted his paper, the doctor was nable to say positively; he had regarded them as ases of croup.

Dr. Sayre believed that his good results had been rgely due to the beneficial influence of continuous halation of steam for several days after the obstruction had been removed by the operation. He had seen everal cases of croup in which death from suffocation eemed imminent, but which had recovered under the igorous and constant application of steam. Fill a oom with the vapor of hot water and make the paient breathe it for days. Several cases were related. Dr. Sayre thought that the case related by Dr. Leale stablished the propriety of the operation beyond question.

Dr. Garrish recommended the use of steam after he operation. Of the justifiableness of the operation he was fully convinced, and thought Dr. Leale's ases had done much to establish such position, whatever opinion may have previously been entertained by the profession.

Dr. J. C. Peters presented the following statistics aken from Sanne's work, published in 1877. Several series of cases from France were given, namely:—Out of 60 operations there were 18 recoveries; 128 operations and 29 recoveries; 212 operations and 40 recoveries; 169 operations and 57 recoveries. In Portugal there had been 21 recoveries after 59 operations for tracheotomy; in Belgium 8 recoveries had followed 35 operations; in Germany, out of 912 operations, there had been 165 recoveries; in Austria, 79 operations with 28 recoveries; in Prussia, 6 operations with 2 recoveries; in Switzerland, 185 operations with 60 recoveries; in London, 20 operations with 4 recoveries; in America, 325 operations with 84 recoveries.

Dr. Peters was of the opinion that Dr. Leale's case went further towards proving that the operation of tracheotomy was justifiable in diphtheria than any that had yet been brought forward.

Dr. Beverley Robinson remarked that the great success of the French in the operation was no doubt due in a very great measure, if not entirely, to the fact that they were the most expert operators, and that the operation was performed early. He further suggested that whenever tracheotomy was performed, the tracheal fistule should be covered with gauze for the purpose of preventing the entrance of atmospheric germs. The doctor took issue with Dr. Sayre in reference to the use of steam, on the ground that when tracheotomy became necessary, the patient was in a more or less cyanotic condition, the operation was performed for the purpose of affording more perfect oxygenation of the blood, and that steam prevented rather than favored such result. For, in an atmosphere charged with steam, the proportion of oxygen was very much diminished, hence the patient was by so much deprived of the very element which we wished to have in the blood. It was not to be expected that as good results would be obtained if operating in the cold fog of London as in the dry atmosphere of New York.

Dr. Peaslee remarked that the case reported by Dr. Leale rendered the operation justifiable. Not only that, but it must be remembered that the fact that Dr. Leale believed it to be justifiable contributed in a great measure to its success. If Dr. Leale had been in the same frame of mind as the surgeon to whom he had made reference, and who had lost forty patients after the performance of tracheotomy, probably his own patient would not have recovered, for it would seem that if less had been done the case would have inevitably terminated fatally.

With reference to the gauze which should cover the fistulous opening, as suggested by Dr. Robinson, it was to be remarked that the germs spoken of were invisible, while the openings in the gauze were visible to the naked eye. The germs, therefore, could readily pass through the openings in the gauze, and, besides, the gauze would act as an obstruction to the egress of the poisonous material which we desired to eliminate.

With regard to the influence of steam it was very easy to theorize, but there were certain facts, relating to cases in which it had been employed, that could not be so easily ignored. It was well known that steam had benefited many cases, and he would explain its beneficial influence by the fact that, coming in contact with mucous passages, the foreign substance was softened and put into a condition which increased the chances for its easy removal. It was expectorated, we would say, and then we had got rid of the primary cause which prevented proper aeration of the blood. Dr. Peaslee was willing to admit that an atmosphere laden with steam contained a diminished proportion of oxygen, but at the same time maintained that the use of steam so facilitated the entrance of air that a greater amount was taken into the lungs, and, therefore, a correspondingly larger proportion of oxygen. He was, therefore, of the opinion that steam had a practical value in the class of cases under consideration.

With regard to the cold fog of London, to which Dr. Robinson had made reference, it was a noteworthy fact that the mucous membrane of the air-passages of many persons was so sensitive there was a constant hacking cough while in a dry atmosphere, but when in a moist atmosphere the same individuals were comparatively free from any such annoyance.

Dr. Sayre remarked that no one in New York would

think of operating in *cold*, foggy London, for it was heat as well as moisture that was demanded.

Dr. Hanks called attention to one noticeable fact in Dr. Leale's case, namely, it illustrated that a severe case of diphtheria might recover without medication. It was very commonly recommended that large doses of quinine should be administered to reduce temperature, and a variety of other remedies employed, both for local and constitutional effect, but in the case reported the child recovered without the aid of any medicinal agents. In his experience pseudo-membranous croup in this city was an exceedingly rare disease. Not long since he was called to see a child, and made the diagnosis of membranous croup, and was unable to recognize any general systemic infection. Within one week another child in the same house was taken ill and presented unmistakable signs of diphtheria. Since that time he had seen several like instances, and had come to regard his diagnosis of membranous croup as incorrect, and believed the original cases were true diphtheria.

Dr. Blumenthal regarded Dr. Leale's case as one in which the operation was justifiable, but desired to call the attention of the Academy to two cases. One was the case of a child which had become very cyanotic and was apparently in an extremely dangerous condition, so much so that a surgeon had been called to perform tracheotomy. Dr. B. preferred to employ other measures for the relief of the patient, and the operation was postponed one hour. At the end of that time the child was no worse, and the operation was postponed three hours, and by the end of that time the patient had revived sufficiently to encourage the doctor to go on without an operation. The child recovered. The second case was similar, and both illustrated the fact that cases recovered without tracheotomy, even after the most urgent symptoms had been developed.

The Academy then adjourned.

SURGICAL SECTION.

Stated Meeting, March 13, 1877.

Dr. Stephen Smith, Chairman.

GALVANO-CAUTERY IN SURGERY.

The discussion was opened by Dr. H. G. Piffard, who reviewed the history of actual cautery down to the year 1850, when Middledorf added a new element —namely, the galvanic current. The subject was then studied under three heads: 1, means for generating; 2, means for maintaining; and 3, means for controlling the heat. Under the first heading reference was made to the old methods of generating heat by means of coals applied to the surface, the burning of different substances, such as varieties of wood, cotton, linen, etc., etc., upon the surface to be cauterized, and the use of different metals, such as iron, silver, bronze, and gold. It had been supposed that different kinds of wood and different metals possessed distinct virtues, and a refinement in their use had been carried so far as to recommend certain articles for certain diseases. The introduction of the galvanic current afforded a means for generating heat, the batteries had been so improved as to give a ready means for maintaining it, and ingenious devices had placed the heat under the immediate control of the hand by which the application was made. An interesting description was given of the various batteries that had been devised and the apparent advantages which some possessed over others.

THE DEGREE OF HEAT REQUIRED.

Dr. Piffard then gave a practical review of t effect produced by different degrees of heat. For e ample, boiling water was a cautery, but the ulc which followed its use was slow in healing, and tl cicatrix showed a remarkable tendency to contrac The red heat cauterized, but it destroyed the tissues a considerable depth, and disagreeable slough fo lowed. If, however, the actual cautery or galvan cautery was employed as a hæmostatic, the red he was required, because it coagulated the blood in tl vessels; and in operations by means of the galvan cautery the coagulation preceded the knife, hence n hemorrhage followed.

The white heat destroyed the integument only which it was applied, and did not penetrate the ti sues beneath. The slough separated rapidly, if tl heat was applied a sufficient length of time to nece sitate slough at all, and the ulcer remaining heal quickly. The reason why the deeper tissues remain unaffected was because they were protected by the ca bonized surface overlying them. The white heat pe mitted hemorrhage as much as did the cold knife.

Dr. L. A. Sayre objected to the *gas cautery*, now i quite common use, on the ground that the screen whic had been devised to protect the surface as well as pr vent the noise of the flame was very liable to g injured, and so permit an intensely painful vesicatic all around the point at which the application of tl platinum cup had been made. The doctor, therefor preferred Pacquelin's apparatus.

Dr. Dawson referred to the fact, too frequentl overlooked, that in order to prevent hemorrhage whi using the galvano-cautery knife, the heat must trav more rapidly than the knife itself.

ANÆSTHETICS.

Dr. F. N. Otis exhibited Clover's apparatus for ad ministering ether, and remarked that it had given hi the best satisfaction of any apparatus he had ever em ployed, for anæsthesia was readily produced witho struggle upon the part of the patient. It could be use for the administration of laughing-gas without pr ducing any of that dreadfully suffocative appearanc so commonly attending its use by the methods usuall employed. He thought well of prefacing the ether b the use of a moderate amount of nitrous oxide.

Dr. L. A. Sayre objected to the use of ether becaus of the struggling on the part of the patient as well a the slowness of its action. He had always employe chloroform, had never had any accident attend its use and believed that safety depended upon administerin it in a peculiar manner. His method was to place fiv drops, at most ten, in some convenient receptacle b means of which *all* atmospheric air could be exclude from the mouth and nose of the patient. If *all* at mospheric air was excluded such small quantity woul quickly and safely produce anæsthesia. If unpleasan symptoms were developed, artificial respiration woul keep the patient alive until the effect from such sma quantity of chloroform had passed away; whereas when alarming symptoms developed after the patien had been inhaling the *diluted* gas for some time, i was not easy and perhaps impossible to resuscitat him. Used in that manner a pound of chloroform would last him a year.

Dr. Otis.—It would last me ten years.

On motion made by Dr. Sayre, Dr. Piffard wa requested to prepare a report on the galvano-cautery to be submitted to the Academy. The Section the adjourned.

ARMY NEWS.

fficial List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 11 *to March* 17, 1877.

GREENLEAF, C. R., Surgeon. Assigned to temporary duty in the office of the Medical Director of the epartment. S. O. 40, Dept. of the Gulf, March 6, 877.

SKINNER, S. O., Asst. Surgeon. Assigned to duty Fort Johnston, N. C. S. O. 49, Dept. of the South, arch 13, 1877.

Correspondence.

CROUP AND DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

R:—I have been much interested in reading the iscussion, as published in the RECORD, relative to ie duality of the two forms of laryngitis, as obrved in what we, in the country, call croup proper id diphtheritic croup. So far as my experience oes, it having been principally confined to an extenve epidemic of diphtheria lasting eighteen months, gether with many other cases in my own and in iat of the practice of others, I cannot imagine how ny one can arrive at any other conclusions than those f Professors Flint and Smith. In Central New York, think, there is but one opinion among the members f the profession, and that is, that they are essentially vo distinct diseases.

Without desiring to enter into a purely scientific iscussion of the matter, I will briefly make a few atements. In a practice of thirty-four years, in the me locality, I have only seen six or seven cases of hat I call pseudo-membranous croup (living in a alarious district); whereas in the eighteen months oken of heretofore—during an epidemic of diphieria—I saw *twenty-eight cases* of what I then and ow termed diphtheritic croup. Occasionally, since iat time, I have seen a few cases of diphtheria, with few terminating fatally in diphtheritic croup. In ıy fatal cases of pseudo-membranous croup (four in umber), death occurred by apnœa, whereas the terination *in every one* of my cases of diphtheria, croup as *by death*, and that by asthenia.

Right here am I reminded of a remark once made o me by a very clever and intelligent old practitioner, nd one which *I fully endorsed*, while speaking upon he difference in the two forms of croup, which was his. Said he: "When I have a case of croup, *and it ecovers*, I know it was *not* diphtheritic croup, for *very one* of the latter dies."

As to the locality of the exudation, with only *one* xception, I always observed it first upon the uvula, onsils, and fauces, while the reverse was the case in ay cases of pseudo-membranous croup.

I frequently saw cases of the former complicated vith enlarged lymphatic glands and hemorrhages, nd one case of paraplegia, and met with nothing of he kind in my cases of pseudo-membranous croup. n diphtheria, without the laryngeal symptoms, I saw iot a few cases of paralysis of the muscles connected vith deglutition and speech. I well remember one ase where the patient, while apparently convalescing, nd while walking across the room, suddenly fell, and t was ascertained that both lower extremities were aralyzed, with the bladder somewhat involved. In short time the same diseased action extended to the muscles concerned in swallowing and in speech. She could neither swallow nor express her wants except by motions and writing. For weeks this condition of things continued, and eventuated in perfect recovery.

I see that Dr. Jacobi says, that the reason why cases of pseudo-membranous croup are not complicated with paralysis, is "because they do not live long enough." While I entertain a high opinion of the doctor's attainments, I desire to briefly relate the following case. I was called to see a little boy, five years old, during the epidemic of which I have heretofore spoken, who had been ill *six hours* with diphtheria, and ascertained upon my arrival that the alarm was "owing to his having become croupy an hour before." Within *twelve hours* of the invasion of the disease, and while suffering from the most distressing dyspnœa I have ever witnessed, he rose in his crib, and fell over upon the floor *completely paraplegic*. He lived twenty-four hours after that, and died, not having regained any control over the lower limbs. Without farther remarks, I will bring this unscientific paper to a close.

D. COLVIN, M.D.

CLYDE, WAYNE CO., March 15, 1877.

Medical Items and News.

PRESBYTERIAN HOSPITAL, N. Y.—Dr. George F. Shrady has been appointed Attending Surgeon of this institution, to fill the vacancy occasioned by the death of Dr. Gurdon Buck.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending March 17, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
March10.....	0	5	90	3	7	57	1
" 17.....	2	1	85	5	8	50	1

THE NEW YORK HOSPITAL.—The formal opening of the New York Hospital was celebrated last evening by an address by Dr. Van Buren, at Chickering Hall, and a reception at the hospital building in West Fifteenth Street. At the hall, the platform was occupied by the Governors of the institution and other distinguished guests, including Secretary David Colden Murray, Treasurer William H. Macy, Frederick A. Conkling, Nathaniel P. Bailey, Sheppard Gandy, Robert J. Livingston, Jackson S. Shultz, George Cabot Ward, William B. Hoffman, Edward S. Jaffray, Merritt Trimble, Henry J. Davison, Theodorus B. Woolsey, William M. Halstead, Herman R. Lewy, Dr. James P. Gray, of Utica; President Daniel G. Gilman, of the Medical University of Baltimore; Dr. King, of the same institution, and others. Vice-President Beekman presided, and introduced Prof. William H. Van Buren, who delivered an address descriptive of the past history of the institution and the various improvements which modern science has introduced into the hospital systems of Europe and America. The Professor combated the idea that city hospitals to be useful must be located in the suburbs. It was undoubtedly true that the fresh air of the suburbs and

the pavilion system had a favorable effect on the general health of patients, but the present demand was for institutions that could care for the sick and wounded in the heart of the city. In many of the large towns of Great Britain and Ireland the authorities, instead of removing all the great hospitals to the environs, had made large and magnificent additions to existing institutions; among others, to Guy's and St. Bartholomew's Hospitals, in London, and the Royal Infirmary, in Edinburgh, all of which were in the centres of crowded populations. The criticisms which had been urged against city hospitals could be as well urged against cities themselves, and as long as the tendency of popular aggregation was toward the cities, so long central hospitals in the heart of the populous districts would be necessary.

At the close of the address the audience adjourned to the hospital in Fifteenth Street, where a reception was held by the Governors and Board of Officers. The entire building was illuminated and thrown open to the guests, who expressed themselves highly pleased with the result of their inspection.

The hospital proper is on West Fifteenth Street, a few steps from Fifth Avenue, and has a frontage of one hundred and seventy-five feet on that street. Immediately in the rear, and fronting on West Sixteenth Street, stands the old Thorne mansion, which also belongs to the hospital, and is connected with it by handsome passageways. The Thorne mansion will be used for offices, and the general administration of the affairs of the hospital. It contains a medical library of 13,000 volumes, besides the museum and the pathological cabinet. A portion of this building will be set apart as a training-school for nurses.

The hospital building is seven stories in height, two of which are in the Mansard roof. The material of which it is constructed is pressed brick, handsomely trimmed with gray sandstone. The structure is pronounced to be absolutely fire-proof, and will not be insured. The only wood employed in its construction is in the doors. The flooring throughout is composed of tiles laid in cement on iron beams. The partitions are of iron and sand, with iron lathing. The wards, private rooms for patients, physicians, and attendants, and all other portions of the building are thoroughly lighted and ventilated, especial pains having been taken to admit the sun's rays at all hours of the day. Heat will be furnished by steam. Two elevators are provided to facilitate ascent and descent. The water supply is partly from the Croton aqueduct, and partly from an artesian well sunk in the yard, and is abundant for all purposes. The plastering and flooring are of non-absorbent material, and it is claimed will not retain the noxious gases emitted from persons afflicted with contagious diseases, thus obviating the causes of complaint so frequently made against similar institutions. The hospital has a capacity for the accommodation of two hundred patients and sixty attendants. An ambulance service is provided which will be subject to call from the police stations. The Hospital Society is the owner of the ground and buildings in fee simple, the cost of which, including furniture, is $900,000. The Board of Governors have appointed the following medical staff for the ensuing year: Medical Superintendent in charge, Dr. Francis M. Weld; Consulting Surgeons, Drs. Willard Parker, Alfred C. Post, and William H. Van Buren; Attending Physicians, Drs. William H. Draper, Thomas F. Cock, Charles B. Hackley, James W. McLane, Gouverneur M. Smith, and Woolsey Johnson; Attending Surgeons, Drs. Charles M. Allin, George A. Peters, Robert F. Weir, Thomas F. Markoe, and Henry B. Sands; House Surgeons, Drs. C. H. Wright, Holt C Wilson, and S. S. Kahn.

The Metric System in New Jersey.—The District Medical Society for the County of Hudson, N J., at the regular meeting held on March 6th, unanimously agreed to a resolution which recommends the use of the metric system in prescribing.

The Late Dr. Gurdon Buck.—At a meeting of the Medical Board of the Roosevelt Hospital, held on March 7, 1877, the following resolutions were unanimously adopted:

Whereas, The recent death of Dr. Gurdon Buck, the Senior Consulting Surgeon of the Hospital, though not unexpected, severs a connection of many years duration to most of his colleagues; therefore, be it

Resolved, That we tender to the family our earnest sympathy with them in the great affliction which has come upon them, and also that we express, in this imperfect way, our appreciation of the high professional aims, the life-long devotion, and the disinterested benevolence shown by our late associate in his distinguished career of nearly half a century.

Resolved, That the Secretary incorporate in the minutes of the board the preceding preamble and resolutions, and publish the same in the medical journals of this city.

T. M. Markoe, *President*.

Robt. Watts, *Secretary*.

The Alumni Prize Committee of the College of Physicians and Surgeons for the coming year is composed of the following gentlemen: Dr. Ellsworth Eliot, Dr. Charles McBurney, Jr., Dr. Frank P. Kinnicutt.

Sanitary Aspects of the War in the East.—Speaking of the possibility of war between Russia and Turkey, the *Lancet* says:—"The two great natural obstacles in the path of the Russians would be the Danube and the Balkans, and, if the Turks retain command of the sea, Varna would be for them a most important position.

"Apart, however, from all military difficulties, there are very grave ones on the score of climate and disease. Very much will of course depend upon the character of the season, upon the duration of the campaign, and its successful progress, but it must never be forgotten that the valleys of the Danube and its tributaries are the homes of endemic diseases, of malarious disease, agues, dysentery, and severe and exhausting fevers, and that in the medical history of all the campaigns against the Ottoman power disease has played a formidable part. Bulgaria is not so marshy near the Danube as Roumania. The climate of Roumania may on the whole, be regarded as good, but it is subject to extreme changes of temperature—hot by day, and cold at night—and it is owing to these alternations together with the miasma arising from the swamps in the vicinity of the Danube and its affluents, that pernicious aguish fevers are prevalent. It is scarcely probable that an army in the field would escape without much inefficiency from sickness—such as fevers, diarrhœa, and dysentery, possibly cholera, to which other diseases might be superadded or not, according to the nature and adequacy of all the preparations and arrangements, or the reverse. The success of an expedition will greatly hinge on supplies of good diet, sufficient clothing to protect against nocturnal cold, and a rapid advance. The Russians in 1828 suffered terribly from disease, and the losses among our own troops at Varna, immediately before the Crimean war, from cholera, diarrhœa, and fever, were considerable."

Original Lectures.

THE TREATMENT OF ROTARY-LATERAL CURVATURE OF THE SPINE.

BEING REMARKS MADE BEFORE THE SURGICAL SECTION OF THE NEW YORK ACADEMY OF MEDICINE, MARCH 23D, 1877,

BY LEWIS A. SAYRE, M.D.,

NEW YORK.

A NATURAL introduction to the subject for my remarks this evening is a reference to the cause of the rotation in lateral curvature of the spine. In regard to this point I can do no better than adopt the explanation given by Dr. A. B. Judson in a paper read before the New York Academy of Medicine, April 6, 1876, which I take the liberty to quote:

"The distinguishing feature of the explanation of rotation here proposed is the recognition of the fact heretofore overlooked, so far as I am aware, that the posterior portion of the vertebral column, being a part of the dorsal parietes of the chest and abdomen, is confined in the median plane of the trunk, while the anterior portion of the column, projecting into the thoracic and abdominal cavities, and devoid of lateral attachment, is at liberty to, and physiologically does, move to the right and left of the median line.

"In lateral curvature would not a degree of relief be afforded by a similar application (referring to Pott's disease) of antero-posterior force, by which a part of the weight would be transferred to the posterior portion of the spinal column, which is prevented by its muscular and fibrous attachments from deviating far from its normal position?"

To the question asked by Dr. Judson, I give an affirmative answer, with the following qualification, namely: that the superincumbent weight should be removed from the bodies of the vertebræ entirely and be transferred, not to the posterior and comparatively immovable portion alone, but to the irregularities of surface upon the entire trunk. I believe that such indication is fulfilled, to a very great extent at least, by the plaster-of-Paris jacket.

REMOVING THE SUPERINCUMBENT WEIGHT.

I regard it as one of the great essentials for the restoration of the bodies of the vertebræ to their normal position that the superincumbent weight should be removed. Unless this is done all springs and braces are unavailing, so far as radical cure is concerned. Not only that, but they are to be regarded as injurious, even as a temporary treatment: first, because, as a rule, they are not worn with any sort of comfort; and second, they multiply the curves without straightening the column. The instant the spinal column can be made straight that instant the rotary-lateral curvature is removed. For the milder cases, those in which there is simply a deficiency in muscular tonicity, some light elastic support which will serve as a reminder to the patients that by their own will they are to bring the muscles into action, together with a proper course of gymnastics, might, perhaps, effect a radical cure. But when the osseous structure of the spinal column has become involved, it is my opinion that all the braces and other instruments which have been devised for the cure of this deformity are of no practical value whatever.

SELF-SUSPENSION.

It seems that Dr. Mitchell, of Philadelphia (Dr. Weir Mitchell's father), many years ago, taught that the proper method of treating lateral curvature of the spine was to cause the children to suspend themselves several times daily, maintaining the position a few minutes each time. The method fell into disuse until revived by Dr. Benjamin Lee, of Philadelphia, who continued to employ it, but failed to give due prominence to its worth.

SUSPENSION BY AID OF APPARATUS.

As a substitute for the usual method of suspension by the arms I employ a compound pulley and headgear such as I have used for a long time while adjusting the plaster-of-Paris jacket in the treatment of Pott's disease. I believe that the superincumbent weight can be much more effectually removed from the bodies of the vertebræ, hence the spinal column much more completely straightened, by causing the patient to raise himself by lifting from the *occiput* and *chin* than by any other method that has been adopted. I therefore attach the pulley, cross-bar, and head-piece to a hook over the patient's head (a tripod with long legs and a hook above is commonly employed), adjust the head-piece so as to draw equally upon the occiput and chin, and then cause him to raise himself by drawing slowly and steadily upon the cord passing over the pulley above. (See Fig. 1.)

FIG. 1.

I believe that no harm will come from this method of suspension providing the hands of the patient are not permitted to come below a level with the forehead. They should be held high over the head, thus calling into action the muscles of the thorax, and obviating undue traction upon the neck.

(Three adults then suspended themselves with perfect ease.)

While suspended the patients should be required to take three full inspirations. A marked change will

then take place in the appearance of the back; the curves will become more or less completely obliterated. (See Figs. 2 and 3.)

In treatment the patients should be required to practise self-suspension two or three times a day, maintaining the position for two or three minutes each time.

PRECAUTION.

The self-suspending apparatus should never be used by the patient unless under the immediate supervision of some attendant, for the following reason: The pulley is a compound one, and if the cords become twisted upon themselves in any way, it may be easily rendered immovable. Now if the child should be permitted to put on the head-piece and draw himself up, and then, as he might do in his childish fancy, take a notion to swing around, or should accidentally do so he would probably become permanently sus-

Fig. 2.

pended, and the result might be disastrous. For that reason the tripods have been made by Mr. John Reynders, instrument-maker of this city, varying in height according to the requirements of each patient, which can be readily set up at any time and placed where the mother or some other attendant can superintend the exercise. They have also been made with joints, so that they can be folded and readily packed in a trunk, and in that manner the whole apparatus has been made portable.

After six or eight days, more or less, and while suspended, a plaster-of-Paris jacket is applied in the same manner as for Pott's disease. The suspension, however, while the jacket is being applied, as a rule, should be made from the axillæ as well as from the occiput and chin, for the reason that the patient can not suspend himself sufficiently long to allow of its proper adjustment. I believe that it would be better, were it possible, to adjust the jacket while the patient keeps up self-suspension from the head as described.

[An intelligent gentleman (a member of the medical profession), who was present for the purpose of having a jacket applied, believed that he could maintain the self-suspended position a sufficient length of time, and accordingly the experiment was made for the first time, and with complete succes . See Fig. 3.]

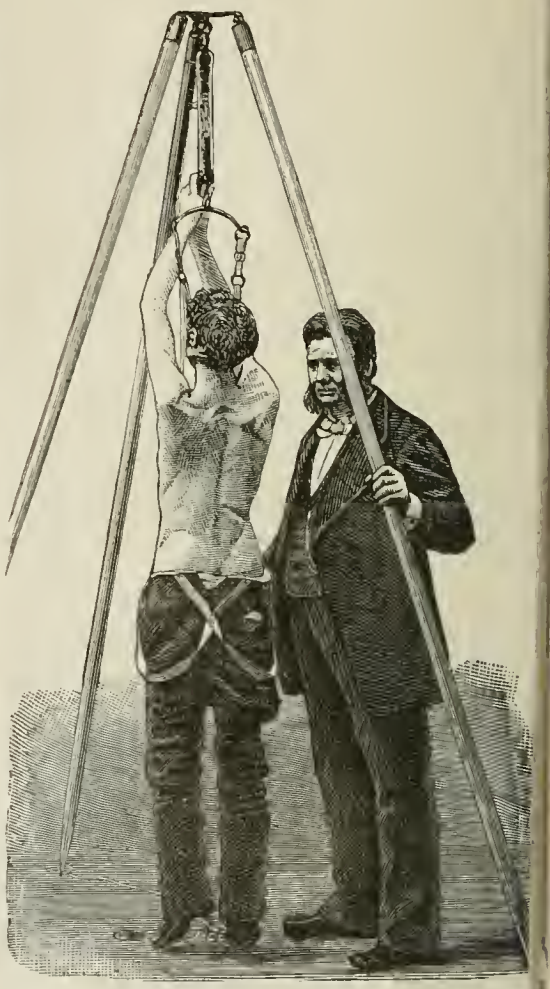

Fig. 3.

In general, however, I believe it to be safer to su pend the patient from the axillæ, occiput, and chi rather than from the occiput and chin alone, while t jacket is being adjusted. (See Fig. 4.)

ACCESSORY APPARATUS WHEN THE AFFECTION I VOLVES THE CERVICAL VERTEBRÆ.

In cases in which it becomes desirable to employ so measure to rectify the deformity in the cervical regi what had been called "The outside Jury-mast," recommended. It consists of a plate composed cast and malleable iron, with an upright rod curvi over the top of the head, and terminating in a ho for the attachment of the head-piece to be buckl under the chin and occiput. To the lower and m leable portion, which is to be bent to suit the surfa to which it is applied, are attached strips of per rated tin as seen in the illustration. (See Fig. 5.)

While adjusting the jacket, the "jury-mast" is o

be secured in its proper position by the successive layers of bandage, and when the plaster becomes set, a firm support is given from which traction can be made upon the occiput and chin by means of the leathern head-piece.

SUBSEQUENT TREATMENT.

The patient should be required to practice self-suspension after, the same as before, the application of the jacket; and as soon as the straightening of the spine becomes sufficient to render the jacket loose, it should be removed and another applied. Such treatment should be continued until the deformity has been nearly or entirely overcome, when a corset such as I have recently had made by Mrs. Drury, of this city, may be worn with advantage.

SUCCESS OF THE TREATMENT.

This plan of treatment has in my hands been far more successful than any which I have ever employed; and the patients have worn the jacket with far less discomfort than any device in the way of instruments that I have ever seen. I believe the plaster-of-Paris jacket to be better adapted to the treatment of rotary-lateral curvature of the spine than any instrument

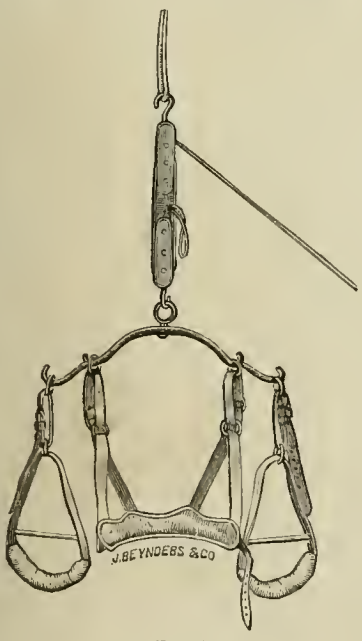

FIG. 4.

which has ever been devised, and in my opinion has the following advantages:

First. It affords a means of treatment which is within the reach of evey intelligent practitioner.

Second. It affords the best means for keeping the superincumbent weight from the bodies of the vertebræ after such weight has been removed by suspending the patient either from the axillæ, occiput, and chin, or from the occiput and chin aided by the thoracic muscles acting through the arms.

Third. It could be worn without discomfort if properly adjusted.

I have formerly recommended this class of patients to wear Banning's brace, which I have regarded as the most perfect instrument that has been devised; but the results obtained with the plaster-of-Paris jacket have been far more satisfactory both to myself and to my patients.

One of the most striking effects produced by wearing the jacket has been a change for the better in the countenance of the patient; and that change I have been disposed to attribute to the increased supply of oxygen afforded by virtue of an increased breathing capacity.

LUNG CAPACITY AS MEASURED BY THE SPIROMETER.

To determine whether a greater amount of air can be introduced into the lungs after than before the application of the plaster-of-Paris jacket, the men are required to use the spirometer, when it is found that the capacity of the lungs for receiving air is notably increased. [Dr. Sass' and Mr. Reynders' instruments

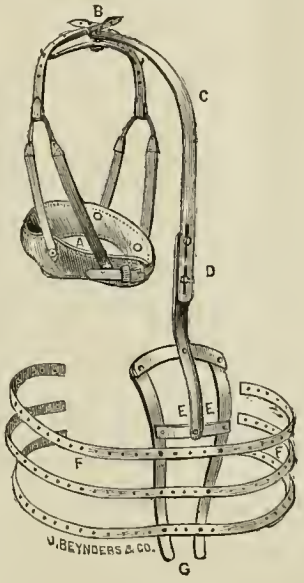

FIG. 5.

were employed, and the capacity of one patient was increased from 140 (expiration) and 100 (inspiration) to 180 and 130; and upon second trial, after the application of the jacket, the capacity reached 200 (expiration) and 140 (inspiration).]

CHANGE IN HEIGHT.

[In one patient upon whom the apparatus was applied during the lecture, the difference in height before and after suspension was 2¾ inches. The same man gave as reasons for wearing the jacket, although his case was incurable, that it gave him support, was easily worn, increased his general strength and health, and afforded more vital heat.]

A YOUNG MOTHER.—An esteemed and entirely trustworthy correspondent has furnished us with the following facts touching a case which came under his observation. As an instance of early maternity, the case is one which certainly vies with any case on record. The girl first menstruated when ten years and six months of age. She became pregnant at eleven years and six months, and was safely delivered of a male child January 19, 1875. The reputed father of the child was, at the time, a hopeful of fourteen years of age. The child is still alive, but not very strong or bright, although the promising parents are doing as well as could be expected.—*Detroit Medical Journal.*

Original Communications.

CASE OF VESICO-ABDOMINAL FISTULA OF FOURTEEN YEARS' STANDING.—CURE.

By JOSEPH WORSTER, M.D.,

NEW YORK.

Description of the Case.—Miss H——, twenty-one years of age, daughter of a captain in the commercial marine, of good constitution and in good health until she was eight years of age, when she was prostrated with a severe attack of diphtheria, from which she apparently recovered under the usual treatment, but which left certain *vestigia*. Among them were incontinence of urine and catarrh of the bladder as the direct exponents of the diphtherial taint. The mental symptoms were, however, the more noticeable of the two classes. Besides extreme and habitual depression of spirits, according to the description of her mother, she suffered a very complete transformation in her habits; lost all disposition to engage in the amusements common to children of her age, and all relish for them, and appeared to regard the games practised by her playmates with decided aversion. Habitual insomnia supervened; such that she lay awake night after night, but at daylight would often drop into a doze of short duration. Whether this was primarily due to her dread of the dark, which was accompanied with an impression that she should die if she was left alone in it, or to the purely physiological causes of which that dread was the psychical exponent, there are no data for determining with certainty.

About this date her ability to stand erect became impaired, for causes that will appear hereafter, and she contracted a habit of standing with a forward bend of the body, the angle of inclination being about forty-five degrees—a phenomenon evidently resulting from peritoneal adhesions. She also became incapable of stooping to pick up anything.

Two years after the date of the attack of diphtheria, cystitis, accompanied with a copious flux of purulent matter from the urethra, supervened. This was immediately succeeded by a tumefaction in the umbilical region, which was followed in due season by large and repeated purulent discharges from the umbilical opening, and subsequently by discharges of urine. The inflammation in that quarter now gradually subsided, although, with occasional purulency, the urinal discharges continued by way of the umbilical opening, to the exclusion and complete subversion of the natural function of the urethra. These discharges appeared to find their way from the bladder to the umbilical opening by means of the urachus, thus presenting a practical return to the process of excretion that obtains during fœtal development. This view of the case was subsequently confirmed; for, during her eleventh year, and in the third year after the attack, after a severe contusion on the linea alba, a new tumefaction presented itself a little lower down, between the navel and the pubes, at about one-third the distance from the latter. It was at first very purple and inflamed, but gradually subsided on the appearance of a transparent spot. This entire tumefaction, which was about two inches in diameter, disappeared altogether as the spot became more and more transparent, and the latter suddenly opened and afforded exit to a considerable accumulation of urine, which obviously proceeded from the vesicular extremity of the urachus. On questioning the parents closely, there appears to have been no sufficient cause for this in any detention of the urine by way of the urethra with consequent pressure. Judging from her mother's statements, the sloughing at this point was very considerable and prolonged; and for two years the opening was of sufficient dimensions to admit of exploring the bladder with the fingers. It should, however, have been premised that the patient had an attack of scarlet fever but a short time previous to the occurrence of the second opening, although there is no evidence that this feature of the case was in any degree determined by that event, and the local contusion appears to have been mainly responsible for this later aspect.

At sixteen years of age the catamenia supervened very naturally and without unusual disturbance, and the patient's general health improved so materially that her parents were so far encouraged as to anticipate that, with proper surgical treatment, a complete recovery might be effected. From that date until she was twenty-one years of age, the patient was under constant medical treatment, and had been examined by several eminent European physicians, who declined to operate, although her general health was such as could only be described by the term robust, when her case was first brought to my notice by her father.

Before entering upon the operation, I shall be pardoned, perhaps, if I enter upon a brief discussion of purely physiological and anatomical interest, in explanation of the reversion to the fœtal manner of excretion presented by the case, particularly as it is a somewhat extraordinary feature. Anatomists are well aware that the urachus is simply a tube leading from the fœtal bladder to a membranous sac designated as the allantois, situated external to the embryo *in utero*, and receiving the fœtal urine. At this period the round ligaments of the bladder are represented by the umbilical arteries which convey the effete fœtal blood to the placenta, where it is regenerated, but which, with the exception of their pelvic extremities that become the trunks of the internal iliacs, are afterwards converted into ligamentous cords, by the deposition of tissue partly, and partly by contraction. The duct familiar to anatomists as the urachus is situated between these two arteries, and after the establishment of the adult manner of excretion, by way of the urethra, is gradually obliterated so completely that its course is not distinctly traceable in dissecting the mature organism. The several stages of this obliteration have not been made out in detail, from actual observation, so thoroughly as could be wished; but it has not hitherto been supposed that sufficient vestiges were left even at eight years of age to admit of a reversion to the original type of excretion, under any morbid conditions arising from the histolytic tendency associated with the introduction of poison into the system. In this case the adult manner of excreting urine had been thoroughly established for eight years previous to the introduction of the diphtherial poison; and yet its histolytic action was sufficient to break down a tissue of not very recent formation and open a passage that had been obliterated for years, and of which, for the most part of its length, all visible traces had disappeared. The structural changes that followed in such rapid succession in this region, and the general nervous disturbance which was their exponent, were exactly such as would naturally be anticipated, as the successive steps of the reversion that finally supervened and maintained itself for years. The reversion being established, the cata-

menia came on normally, and there was a very material improvement of the general health; that is to say, the system readily adjusted itself to the morbid process represented by the fistula, and the urethral passage might in its turn have ultimately become obliterated, without materially impairing the general health of the patient. The time of obliteration varies somewhat, and occasionally at birth the urachus is still open, and the urine is discharged in that manner. In the case of Miss H——, aside from the long-continued perviousness of this canal, it had, together with the hypogastric arteries, formed a hardened and fibrous cord about two inches in diameter, very uniform throughout its whole length, and capable of compression between the thumb and finger, which extended from the bladder to the umbilical opening, throughout the entire length of the linea alba. This cord appeared to consist of peritoneal adhesions, in the mass of which the fistula was formed. Primarily, of course, its issue was at the umbilical opening; but subsequently, when the peritoneal adhesions which had prevented her from standing erect gave way, and the tendency to forward inclination of the body was corrected, the fistula broke out and terminated in the upper portion of the anterior space, not connected with the peritoneum. Its later form was consequently a slight modification of the fœtal process, and, according to comparative anatomists with whom I have discussed it, presented, as respects the cord-like mass and the involution of the hypogastric arteries, a striking anatomical analogy with the male urinary process in the rodents. A thorough study of the data that comparative embryology furnishes will enable the reader to form a definite idea of the relation to each other of the successive transformations in the case, but will not especially profit the practical surgeon.

Operation, April 14, 1875.—Being satisfied from examination that the sphincter of the bladder was capable of retaining the urine after closing the fistula, if an operation for that purpose should be successful—an opinion in which, after an examination with me, Dr. J. Marion Sims concurred—I determined on operating, and accordingly syringed out the bladder with about a pint of carbolic acid water, ʒi. to Oi., using Nott's return current instrument, and leaving in Sims' sigmoid catheter. With the valuable assistance of Dr. Charles Leale, Dr. Willard Parker Worster, and Dr. G. M. Crosby, the patient was placed under the influence of an anæsthetic, and the operation was commenced by making two elliptical incisions, the ends of which met above and below the old cicatrix, thus excising most of it with the existing fistula. These elliptical cuts were directed obliquely from above, downward and inward, in the direction of a centre, so as to make them meet near and above or external to the peritoneum. I unintentionally cut through the latter about three quarters of an inch in the upper angle of the incisions, thus giving my assistants some trouble in keeping back the omentum, which, of course, protruded at the opening thus made, while I was passing the sutures. In closing the wound, the needles were passed about half an inch back from the edge of the incised integument, and carried down near the peritoneum, but not so deep as to interfere with it or in any way to wound it. Seven silver sutures were passed, closing the opening with an easy and well-distributed tension. The entire operation, inclusive of dressing, occupied, according to Dr. Leale's memoranda, only ten minutes. The adjustment of a bandage and the injection of five minims of morphia with the hypodermic syringe completed the work. At ten o'clock in the evening, water was draining off freely by way of the urethra with Sims' sigmoid catheter, and was caught in a vessel adjusted for the purpose. The pulse was 80. There was no special tenderness in the region of the linea alba. The patient was somewhat thirsty, but not more so than would naturally occur after the administration of an anæsthetic. No moisture exuded from the track of the old fistula.

April 15.—Comfortable; had no pain during the night. About two quarts of water had drained off through the sigmoid catheter. The sutures had taken well and without inflammation. No moisture appeared to come from the track of the fistula, but water continued to pass freely through the catheter.

April 16.—A slight leakage was detected in the region of the excision, escaping through the location of a ligature which had been applied to a small artery, which gave exit to a small quantity of fluid that, after careful examination, seemed to be serum. Pulse 78; no tenderness of the peritoneum. The usual nausea, consequent upon the administration of anæsthetics, had been somewhat troublesome, but had nearly subsided. Ordered a teaspoonful of iced brandy to be given as occasion should require, which seemed to have the desired effect.

April 17.—The leakage had somewhat increased, and appeared to be freest while the drain from the urethra was most abundant. It was, however, without any odor of urine, and came no doubt from the accidental peritoneal opening. A careful examination indicated serum.

April 18.—The escape of fluid from the incision had completely ceased during the preceding twenty-four hours. The pulse was 78 and the skin moist; no peritoneal tenderness; tongue slightly furred and yellow. Patient was comfortable and able to take food in sufficient quantity.

April 22.—(Eight days after the operation.) On removing the dressings I found one of the sutures cut through in consequence of flatus in the abdomen, and the escape of urine as free as ever. I resolved to operate immediately, and did so by cutting out the track of the needles and removing the remainder of the old cicatrix; want of solidity in the more recently formed tissue having, as I believed, been the cause of the sutures giving way. I did not, therefore, consider it safe to rely for cicatrization on anything except the sound and fully developed integument of the abdomen. Accordingly, with the same assistants as before, with the exception of Dr. Leale who had gone to the country, the patient was again placed under anæsthesia; and with two 3¼-inch incisions, the sutures having been previously removed, I excised all traces of the former operation, making the walls of the new operation very oblique; introduced the needles six lines back from the tegumentary edge, and returned the sutures, so graduated as to distance, as not to be more than two lines apart. Used the ordinary silver suture and gave a firmer twist than in the previous operation; the greater solidity of the integuments admitting of a higher degree of tension. Then applied short and narrow straps between the sutures, with a strip of lint over the twists, and a succession of long straps over the lint. Finally, at the suggestion of Dr. Willard Parker Worster, I applied a girdle of adhesive plaster, six inches in width, around the body, after the manner of a bandage, the ends being split into many strips to admit of an intertexture at the meeting edges. Each strip was secured with a pin, so that there should be no retraction of the general edge by the slipping of the plaster. The sutures were thus prevented from being loosened or

torn out in case of flatus or vomiting. This dressing was not disturbed for twelve days. On removing it in the course of the thirteenth day the adhesion was perfect. I accordingly removed the sutures and redressed the wound, which required some attention to facilitate the renewal of the excised integumental tissue and the healing of the needle punctures. Renewed the dressing after cleansing the wound with carbolic acid water, readjusted the zone of adhesive plaster, and resorted to the additional security of a common bandage over the whole. After this the dressings were renewed on every alternate day. At three different times, intervals of several days intervening, I found a slight leakage from the deep punctures made by the needles, which, on microscopic examination by Dr. T. E. Satterthwaite, proved to be nothing but serum exuding from the accidental incision of the peritoneum. These wounds, however, gradually cicatrized and, in six weeks from the date of the first operation, the patient was convalescing rapidly. The sigmoid catheter was retained in the urethra until the wound was completely healed externally. On its removal the patient retained the urine for two hours without inconvenience, and was soon able to take rambles about the city without troublesome inclination to urinate.

One very extraordinary feature connected with the case, and one of considerable interest to thoughtful physiologists, consists in the long-continued perviousness of the nrachus—the remains of an obliterated canal existing in the fœtal stage, and connecting the cavity of the bladder with a membranous sac known as the allantois, which is externally placed and receives the fœtal urine. At birth this canal is occasionally unobliterated, and the urine escapes by way of the umbilical opening. The whole cord, together with the hypogastric arteries, formed a hardened, fibrous, and cord-like mass of about two inches in diameter, capable of compression between the thumb and finger, and of uniform size throughout the whole length of the linea alba from the bladder to the umbilicus. The upper part, from the bladder to the umbilicus, appeared to consist of peritoneal adhesions, and in this mass the fistula was found. Its issue was primarily at the umbilical opening. Subsequently, however, the peritoneal adhesions, which had eventuated in the forward inclination of body, gave way, the body became again erect, and the fistula broke out and terminated in the upper portion of the anterior space, not connected with the peritoneum; the whole constituting at first a fistulous reversion to the fœtal process, which was finally somewhat modified, but continued substantially to repeat and continue that process until the patient was twenty-one years of age. The reader who is curious to pursue the literature of this subject will find much important information in the *Dictionnaire des Sciences Médicales*, volume xxxviii., article *Ouraque*, in Todd's *Cyclopædia of Anatomy and Physiology*, volume i., page 393, and in a paper by Dr. J. J. Charles, read before the surgical section of the British Medical Association in 1875, and published in the 1875 volume of the *British Medical Journal*.

Nitric Acid for Hoarseness.—Dr. W. Handsell Griffiths says that a few drops of nitric acid in a glass of sweetened water, a couple of times daily, will be found an excellent remedy for the hoarseness of singers. One of the largest fees ever received by him—so he says—was for this prescription.—*Southern Medical Record.*

SOME USES OF VASOLINE AND SALICYLIC ACID IN OBSTETRICS.

By HENRY A. DUBOIS, M.D.,

SAN RAFAEL, CAL.

In a recent number of the Medical Record I called attention to the use of vasoline and salicylic acid in the healing of wounds; in the present I propose briefly to mention some of the various uses for which this compound seems to be adapted. Vasoline, or cosmoline, as it is frequently called, is a hydrocarbon made from petroleum by simple evaporation and clarification. It is very cheap, being worth only some forty to fifty cents a pound. It has no taste or smell. Its rôle as a protective against the action of the air is extensive, as in burns, excoriations, etc. It is one of the best of lubricants. Its use in simple and especially in complicated labors is thus very advantageous. Internally, it seems to relieve irritation of the mucous membrane, and, when taken up by the system, though it undergoes no proper digestion, to act much in the same way as cod-liver oil. As a vehicle for more active agents, it is more generally useful than any other oil-like compound. Salicylic acid has of late come into vogue, and is now used for a great variety of purposes—principally as an antiseptic, to reduce the heat of the body, and in diseases in which there is a morbid material in the blood, as in rheumatism and gout, etc. It is not expensive, costing from thirty to forty cents an ounce. I have tried several samples of different manufacture, and find that of Rosengarten, of Philadelphia, by far the best, while the German article that I have used has proved caustic and utterly unfit for many purposes. The American acid is in silky, white crystals, like quinine, has no caustic taste, and, mixed with vasoline, makes a homogeneous ointment. The German is amorphous, looks like chalk, has a slight pinkish color and caustic taste, and, mixed with vasoline, makes a lumpy, irritating ointment, unfit for use.

With these few preliminary remarks, I will now briefly notice some of the many uses of these two valuable agents; and first as to their use in obstetrics. It has been my practice for some time back to use vasoline, with a grain or more of salicylic acid to the ounce, and scented with a drop of ottar of roses, in all vaginal examinations, instead of oil or soap. I believe I thereby more certainly avoid carrying infection from case to case than I should otherwise do. In first confinements it may be used in the first state of the labor, so soon as the woman takes to bed. I make use of a glass syringe, an inch in diameter and without a nozzle. With an instrument of this kind an ounce or more of the semi-solid vasoline can be introduced up to the os, where it remains at the temperature of the body, in a semi-solid state. I use it in this way as a simple lubricant, and without the addition of the acid. If desirable, in certain cases, it can be combined with the extract of belladonna, and, after the labor is completed, with the extract of ergot, or, in case of hemorrhage, with the liq. ferri persulphatis, with all of which it mixes well. If it is desired to introduce it into the uterus, it can be rendered fluid by putting the bottle containing it into water of a temperature of 110° F., when it can be used with the ordinary uterine syringe. In the course of a labor I use three to six ounces, with the effect, as I claim, of shortening the first stage of labor and rendering the parts, especially in first labors, easily dilatable in the second stage, while, after the placenta is delivered, a small quantity of the vasoline, with the acid added, disinfects the

discharges, and does much, it seems to me, to prevent purulent absorption. Indeed, if puerperal fever was prevalent, I should not hesitate to introduce it freely into the uterus immediately after confinement. To illustrate the healing qualities of this combination, I some time ago had an extensive rupture of the perineum in a primipara, due to an unusually large child and to an unyielding perineum. I passed two pins through the lips of the wound and a figure-of-eight around each, and directed the patient to introduce a little of the vasoline ointment two or three times a day on her finger. On the third day after, when I next saw her, on removing the pins I found the wound entirely healed. My cases are not sufficient to base positive conclusions on, but *I am inclined to think that an hour or more can be saved in an ordinary labor by the use of the vasoline, and that the second stage will go on easier, owing to a more thorough relaxation of the soft parts, and to the avoidance of unnecessary friction, and that its use with the acid after labor will do much to prevent puerperal absorption, and, in any event, will conduce to the comfort of the patient.* In dilating the os with the sponge tent, I find that by coating it with the vasoline and the acid (ten grs. to the ounce), I can more readily introduce it, the tent not expanding at first, owing to the coating of vasoline; but, if held for a moment or two in place, it will remain without danger of its coming away, and will expand to the same limits that it would have done without the coating of vasoline, as can easily be proved by putting two tents in water, one coated and the other not. In erosions of the os, after the engorgement of the parts is removed by glycerine pads, the vasoline and acid ointment, applied on cotton-wool, will do much to effect a speedy cure, especially if alternated with the glycerine. There is one use for this ointment that I have not fully worked out. Physicians are frequently applied to to produce abortion. Recently, on the same day, two women came to me; the reason assigned in the one case was that the husband was syphilitic; in the other, that pregnancy brought on violent attacks of spasmodic asthma. Of course I explained that the child had rights as well as the mother, but it was all that I could do to prevent one of these cases from going to a professed abortionist. In some cases of this kind prevention is better than cure, and I am inclined to think, from some experiments, that vasoline, charged with four to five grains of salicylic acid, will destroy spermatozoa, without injury to the uterus or vagina.

In conclusion, there are a number of uses for vasoline in the lying-in-room and nursery. I make no claim to its being "a cure-all," but it is a great convenience, and its "rôle" is extensive. The ointment makes a good dressing for the umbilical cord. Vasoline answers better than oil or soap to remove the cerumen from the newly-born infant. Mixed with an equal weight of honey and ten grs. of borax or of chlorate of potassa to the ounce, it answers an excellent purpose in cases of thrush. The ointment alone, or mixed with ten grs. of quinine to the ounce, quickly removes the small worms that frequently infect the anus of young children. In the excoriations of infants it effects rapid healing. In the not uncommon sore eyes of the first few days of life the vasoline alone, introduced within the eyelids, effects a cure in a day or two. Again, in the "snuffles" of the old women, which, by preventing nursing, frequently seriously affects the health of the infant, it, when introduced into the nostrils with a camel's-hair pencil, answers better than anything I have as yet tried, especially if the head is kept warm with a flannel cap

There are many other uses for vasoline, alone or combined with varying proportions of salicylic acid, that the experience of the physician will readily suggest to him in this connection. There yet remains to be considered some of the uses of these agents in other departments of medicine, which, in a future number of this journal, I will briefly refer to.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

CHRONIC BRIGHT'S DISEASE—A PECULIAR, AND ALMOST UNMISTAKABLE, SYMPTOM.

As the visiting physician was walking across one of the wards, his attention was directed to a male patient upon the opposite side, and he remarked: "That man has Bright's disease." There was present none of that peculiar pale color of the face, so long recognized as belonging to the facies of Bright's disease, but there was an "unmeaning stare" in the patient's eyes, that gave rise to the snap diagnosis. The subsequent examination of the patient revealed the presence of moderate œdema of the feet and ankles, persistent headache, occasional attacks of nausea, steady loss of flesh and strength, urine with a specific gravity of 1010, and containing albumen to one-third its bulk. No examination had been made for casts. It was the "unmeaning stare," the dulness and sluggishness of the pupil, well-dilated, which was regarded as almost unmistakable evidence of chronic Bright's disease. There were some forms of hysteria in which such characteristic expression might be seen, but when present in male patients it was very much more likely to be evidence of kidney disease; it should suggest a thorough examination of the urine and analysis of the case. The following

TREATMENT

was recommended. Make the diet as little nitrogenous as possible. Use milk freely. Iron and cod-liver oil were recommended for the purpose of making up the deficiency produced in the red corpuscles by the increase in the elimination of albumen. To assist the iron, it was combined with nux vomica and sweet spirits of nitre, according to the following formula:

℞. Tr. ferri muriat.....gtts. x.
Tr. nucis vom.....gtts. x.
Spts. etheris nitras.....℥ i.
M.

To be taken three times a day.

If gastritis troubled the patient, the iron and cod-liver oil were to be stopped, and a saline purge to be administered—cream of tartar being regarded as the best. Large doses of pepsin and oxalate of cerium might be used to quiet the stomach. The specific treatment for the disease consisted in the use of the following:

℞. Hydrarg. bichlorid.....gr. $\frac{1}{20}$.
Digitalis.....gr. i.
Quin. sulph.....gr. i.
M.

To be given three times a day.

The skin was to be freely rubbed with olive oil twice a day.

ARGYRIA—A METHOD OF ADMINISTERING NITRATE OF SILVER WITHOUT PRODUCING DISCOLORATION OF THE SKIN.

The patient, a young man about twenty years of age, had taken sufficient of nitrate of silver to produce marked discoloration of the skin. It was said by the clinical teacher that nitrate of silver could be used for two or three years without producing such effect, if given in half-grain doses three times a day, until sixty, perhaps eighty, grains had been given, and then making an interval of two or three weeks. At the close of the vacation the remedy could be resumed, and when the stated number of grains had been taken, another interval was to be made, and so on.

LOCOMOTOR ATAXIA—ABSENCE OF DISORDER OF THE OPTIC APPARATUS.

The case before us was exceptional, from the fact that the patient had had no disturbance whatever of the optic apparatus, and yet the symptoms of locomotor ataxia were so well marked as to leave no doubt regarding the diagnosis. It was the fourth case in which disturbance of vision had been absent, and yet the other symptoms of the disease had been well developed. These cases were interesting, because disturbances of the optic apparatus is an early and very frequent symptom of locomotor ataxia.

Progress of Medical Science.

DEGENERATION OF NERVE FIBRES.—The excellent investigations of Ranvier have opened for us an entirely new view of the structure and life of the nerve fibre. His recent investigations appear to show that the medullated nerve fibre is not a simple organic or physiological unit, but is rather a combination of units, and is to be regarded as a chain of single nucleated cells. Each fibre shows at regular distances annular constrictions of the sheath of Schwann, with corresponding interruptions of the medullary sheath (Frey's *Compend. of Histology*, Amer. Ed., p. 195, Fig. 171). The distance between the constrictions is pretty uniform for each fibre, and increases in proportion to the thickness of the latter. The interval between each two is usually from one to two millimetres. Midway between each two constrictions, at the inner surface of the sheath of Schwann, and in a trough-shaped excavation of the medullary sheath, lies a cell nucleus, surrounded by protoplasm. Under the action of a dilute solution of nitrate of silver, the boundaries between the fibre segments become brown. This occurs later in the constrictions of the sheath of Schwann, and still later in the axis-cylinder at the level of the constrictions. It would appear, therefore, that each fibre segment has the morphological value of a *cell unit*.

Hitherto the opinion has generally prevailed that the axis-cylinder formed a continuous, entirely unbroken cord, throughout the entire length of a fibre, there being in every part of it the same conditions for the transmission of the excitation. Engelmann appears to have shown experimentally that such is not the case, and that a discontinuity of the axis-cylinder exists at the cell boundaries, each cell having its own axis-cylinder, which during life is in intimate contact, but not in actual continuity, with that of the two adjacent cells. The excitation is transmitted by contact from cell to cell; but, in the process of death, each cell dies independently of its neighbor, the process never being communicated by contact; the cell boundary is rather an impediment to such a communication.

The observations on which these conclusions are based were made, for the most part, on the sciatic nerves of frogs. The nerve trunk was carefully isolated for a short distance, and a piece, 2 to 4 mm. long, removed with very sharp, pointed scissors. Osmic acid, carmine, and picro-carmine were used to render the nerve changes evident. Engelmann found that in the divided nerve the process of degeneration was propagated from the point of injury—in the central portion in a centripetal, in the peripheral in a centrifugal direction—within each nerve fibre, as far as the next Ranvier's constriction. *The latter was never overstepped.* In the central stump the degenerative occurrences were limited to this purely local process—that is, only the directly injured cells died. In the peripherical stump, however, there was added to the latter a process of degeneration which apparently commenced simultaneously throughout the entire length of the nerve trunk, and was not caused by the mechanical injury as such, but depended on the discontinuation of the connection with the centrum thus produced. Accurate examination, with higher magnifying powers, of the central stump, after a careful separation of the fibres, presented the unequivocal fact that within the majority of the fibres the degenerative process extended accurately to the next Ranvier's constriction, beyond which the fibre suddenly assumed its normal appearance. In many fibres, where the next Ranvier's constrictions were far from the cut surface, the degenerative process did not extend to the next cell boundary. In these the degenerated part gradually passed over into the normal part. Months after the division of the nerve, when the process of degeneration had reached its highest degree, the cell beyond the first Ranvier's constriction, in the central stump, was always found to be normal. During the process of degeneration the nuclei of the nerve fibres and the protoplasm surrounding the former do not undergo any change worthy of mention. The former do not present any sign of proliferation or division.

The discontinuity above demonstrated is also shown by the fact that in picking nerve fibres apart, after they have been treated with nitrate of silver, the axis-cylinder frequently breaks exactly at the Ranvier's constriction, while the tearing of the sheath of Schwann and of the medullary sheath has occurred at another place. The axis-cylinder is then seen to project naked for a long distance beyond the sheaths, and the characteristic brown tinge of the free end of the cylinder shows that the separation has occurred exactly at the level of a Ranvier's constriction. At the same time the regular and square form of this free end shows that it pre-existed as such within the fibre. —*Onderzoekingen gedaan in het Phys. Lab. der Utrechtsche Hoogeschool, Derde Reeks*, IV. A. 1.

A CASE OF SPASMODIC INFANTILE CEREBRAL HEMIPLEGIA.—Experiments on animals have demonstrated that the psycho-motor centres for the limbs are located in the frontal and ascending parietal convolutions and in the paracentral lobe. The microscope has shown that the nerve cells in these regions are larger than in other parts of the brain, and they have been called giant, or motor cells. Pathological anatomy and clinical observation, in their turn, have taught us that lesions of these same convolutions in man produce a special train of symptoms. The following case, which was observed in the wards of M. Charcot, at la Salpê-

trière, is an example of a lesion partly confined to these convolutions:

Marie L——, aged 18, entered the hospital on June 21, 1875. Father died of apoplexy. At the age of five and a half years the patient was well developed, intelligent, and able to read and write. At this time it was noticed that she suffered from a sort of vertigo whenever she went into a large street, but that she never had the attacks when in narrow streets, however crowded. When about six years old, during convalescence from measles, she was seized with convulsions *that lasted seven hours*, and left behind a certain degree of weakness in the left side. Two months later a new attack of convulsions occurred; they began in the left foot, and were accompanied by severe pains. The convulsions spread gradually, involving the left leg and arm, and the left side of the head, and the patient then became unconscious. From the sixth to the eighth year she suffered from pains and shocks in the left arm. From the eighth to the eleventh year she had attacks resembling *petit mal*. During this period she became exceedingly irascible, and the left foot became slightly deformed. When she was eleven and a half years old her menses appeared; the fits of anger now ceased, but were replaced by various eccentricities. From that time the convulsive attacks became more and more frequent and severe; the intelligence decreased; the paralysis of the left side became marked, and finally locomotion became impossible. The attacks were preceded by prodromata and an aura, and constituted veritable epileptic fits, which were complicated by delirium. These fits, however, differed in some respects from ordinary epileptic attacks; for instance, the temperature scarcely passed 102° F., in spite of the repetition of the fits. When admitted to the hospital, the patient spoke and acted like a child of eight or ten years. The left arm and leg were somewhat rigid, and were less developed than the right. The left foot was in the position of marked equino-varus. The fits, after a while, became very frequent, and the patient finally became permanently unconscious. Pneumonia set in, and she died, comatose, on December 2d.

Autopsy.—Brain: Right hemisphere smaller than the left. A morbid centre of long standing occupied: 1, the posterior third of the median and superior frontal convolution; 2, the upper part of the *ascending frontal convolution;* 3, the *paracentral lobule;* finally, the *ascending parietal convolution* was considerably atrophied in its upper third, and tapered off as it approached the morbid centre. The lesion consisted in a cellular infiltration, both of the gray substance of the convolutions in the parts indicated above, and of the white substance as far as the wall of the ventricle. The affected convolutions, although much atrophied, still retained to some extent their original forms, and did not present a yellow coloration. A section through their cortical substance revealed a large number of pyramidal cells, with strongly refracting margins; the cells still retained their processes, and were filled with very dark granules, apparently constituting a sort of calcareous infiltration or degeneration. A transverse section through the affected part showed that the lateral ventricle was dilated; that the lesion extended to the ventricular wall; that the *capsula interna* on the right side was notably atrophied; and that the *nucleus caudatus* and *nucleus lentiformis* were smaller than on the left side. The thalamus opticus and corpus striatum were not altered. *Left hemisphere* normal. The *corpus mamillarium*, the *cerebral peduncle*, and the *anterior pyramid* on the right side were atrophied, but natural in color. A section through the cord above the decussation revealed manifest atrophy without gray discoloration of the antero-lateral column on the left side, and a displacement of the anterior median fissure towards the left side. There was, therefore, well-marked *secondary degeneration*. The inferior lobe of the left lung showed red hepatization. The other organs were normal.—*Gazette Médicale de Paris*, 9th and 16th Dec.

On the Immediate Cure of Piles.—Mr. Reeves, of Edinburgh, has adopted a plan of treating internal piles to which he has given the term "immediate cure." The operation is rapid and the entire treatment short as compared with the ordinary method, viz., by nitric acid, ligature, clamp, and cautery. He thinks, moreover, that it is free from danger and does not always require an anæsthetic. The piles being well down are punctured to their bases by the conical tip of the gas cautery (Dr. Paquelin's). The number of the punctures varies with the number and size of the piles, a pile the size of a half walnut requiring two or three. A dull red heat should be employed, and the point of the instrument is to be gently rotated while it is within, otherwise a portion of the eschar will be withdrawn, and then hemorrhage may ensue. Ulcers or fissures should be cauterized at the same time. Should there be any oozing a touch of the cautery will stop it. The piles are then to be returned and a half-grain morphia suppository inserted. After the bowels have been confined for four or five days a warm injection is to be given, and followed upon the succeeding day by a laxative. At the expiration of a week the patients are discharged. Of eighteen cases thus operated on two were not allowed out for ten days and one for a fortnight, but in these cases there was some uterine or urinary complication. All the patients were examined subsequently, and it was exceedingly difficult to discover by the finger or the speculum that there were any cicatrices following the operation.—*Lancet*, February 17, 1877.

The Germs of Bacteria in Suspension in Water.—MM. Pasteur and Joubert have been engaged of late in the study of the germs of inferior organisms which are contained in water, and at a recent meeting of the *Académie des Sciences* presented the following as the first conclusions at which they had arrived:

1. The germs of bacteria are so numerous in certain waters, for instance in that of the Seine, that a drop of this water, taken either above or below Paris, is always fruitful, and from it many kinds of bacteria may be developed. Some of these germs resist a temperature of over 212 degrees F., while in a moist state, provided the menstruum is not acid; and in dry air resist a temperature of 266 degrees F. for several minutes. These last germs are identical with those studied by Pasteur in 1862, which were derived from the atmospheric dust and resisted a temperature of 212 degrees F.

2. The ordinary distilled water of the laboratories always contained germs, though in less numbers than ordinary water.

3. Water distilled in vessels from which absolutely all foreign germs have been removed is perfectly pure, that is, it is exempt from the germs of inferior organisms.

4. In water taken from springs as they gush from the interior of the earth, before it has been contaminated by dust from the atmosphere, or from the surface of the ground, or by surface water, no traces of the germs of bacteria can be discovered.

5. The germs in question are so small that they pass through all filters, and although so numerous in water that a single drop of it will invariably contain them, they usually do not make it turbid; it may be as perfectly transparent as distilled water.—*Gazette Médicale de Paris*, February 10, 1877.

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CHEAP MEDICAL EDUCATION.

A LETTER in another column, taking exception to some remarks made by us on cheap medical education, invites a discussion of the subject in some of its more general aspects. We readily admit that there are two sides to the question, and that a cheap college may give a good and thorough course of instruction. We believe, however, on general principles, that it is oftener the exception than the rule. It can hardly be otherwise, unless the professors of these schools are more willing to work for love than for money. In a few instances this may be so, but in the great majority of cases it is contrary to all law and reason. While it does not follow that, because a thing is cheap it cannot be good, it is nevertheless admitted the world over that a high price is a certain guarantee for excellence. The burden of proof regarding any uniform relation between extra quality and cheapness is upon the one who advocates such a doctrine. Generally speaking, the best argument in favor of cheapness is cheapness itself. It is, in fact, a central idea, around which all questions of value received must necessarily revolve. Price and quality always bear such a direct relation to each other that it is impossible to separate them. If a particular commodity has a recognized market value, it always commands a market price. This is a law of economy, any exception to which is always looked upon with suspicion by the buyer. If any question comes up regarding the extra quality of a cheap article, something more of proof is required of the relation of the one to the other than the mere assertion of the interested parties. While we repeat that cheap colleges may give good courses of instruction, there is no very good reason for supposing that the students get more than their money's worth. No teacher cares to do good work for the mere credit of the thing, or because he knows he is sparsely paid for his services. The most charitable feelings toward the poor struggling students can hardly explain such pure disinterestedness in his behalf. On the contrary, if the student gets a fair return for his outlay, the conscience of the teacher should be, and we doubt not is, satisfied. If we admit the soundness of these views, we are irresistibly driven to the conclusion that cheap education cannot be so good as that which commands a higher price.

We think we give the requisite force to this statement when we assert that the Faculties of the higher-priced schools fairly earn their money and give ample satisfaction to their patrons. The continued prosperity of these schools is explained in no other way. The adoption of the high prices of medical education, to which our correspondent refers, was a matter of necessity rather than of choice. In view of the rivalry between these schools, the question concerning educational advantages was of first importance; the grade could not be lowered, and the fees had to be raised to correspond. That there are so many students who are willing to pay these fees, quite conclusively shows that they appreciate extra advantages. It is so much to the interest of the larger schools to obtain all the students they can, that it would be a suicidal policy on their part to charge high fees when smaller fees would answer the purpose.

At the risk of still further taking issue with our critic, we cannot see why students who have enjoyed the extra advantages of large metropolitan schools should not be better qualified to perform professional duties than their less fortunate brothers. If his assumptions are based on fact, then our case falls to the ground, and cheap medical education is triumphant. It is, after all, the real test of the quality of the article, and completely overthrows the suspicions associated with its cheapness. In the absence, however, of anything but mere assertions, we are in doubt in regard to the soundness of his views. As far as the title of M.D. may go, every graduate is on a par; but we seriously question if the majority of the students educated in the cheap colleges could pass satisfactory examinations in this city, Boston, or Philadelphia. We say thus much in no disparagement to the average struggling student, as we believe he does the best he can under the circumstances. It is not so much a reflection upon his capabilities of learning as upon the previous advantages he may have enjoyed. It seems almost absurd to suppose that the facilities for medical education in a medical centre are not greater than those in some obscure or inland town. The difference in the advantage of each are so well established that the statement of our correspondent is almost presumptuous. Not only is this difference acknowledged by students and practitioners, but by professors themselves. The classes in our leading schools are not made up entirely of students. There is a plentiful sprinkling of old practitioners who come from different parts of the country to "brush up" by attending lectures here, and not a few professors in some of the outside col-

leges are to be found with note-book in hand, the most earnest and interested of students. This is as it should be, and proves that these rural teachers are willing to give their pupils every opportunity in their power. It is very true that the college cannot make the man, but it certainly helps a great deal. The greater the advantages, the better are the chances for the good student. In this respect the high-priced schools must excel those of lower price, not because the fees are larger, but because they enable the student to enjoy proportionately greater advantages. From this point of view we maintain that a so-called high-priced education is the best guarantee of its genuineness and excellence.

Cheap medical education, aside from its tendency to lower the standard of qualification, has a bad effect in other ways. It unquestionably persuades a great many to enter our ranks who have no business there. If we cannot prevent the rich fools from entering our colleges, we at least have the means of hindering some of the poor ones. We speak of these two classes only in reference to their mental qualifications, in which respect they are on a par. The profession can do without either, but it unfortunately has to take both. The rich fool is a necessary evil, and must be endured. Unless the cheap colleges say they will not allow him to matriculate simply because he is wealthy, they have no right to find fault. On the contrary, they widen the circle by extending equal advantages to his impecunious brother. It is in the way of preventing the latter that the higher fees are of special use. If a small fee is required, there is not much hesitation by the student on account of the extent of the pecuniary risk which he incurs. It is an inducement for the profitable investment of a small capital which no weak-minded youth can resist. Its very cheapness, compared with the value of the prize which he hopes to gain, places it on a par with a lottery speculation. Not much will be lost, but a great deal may be won. The inevitable consequence of all this is, that a host of incompetent men are actually coaxed to study medicine, who under other circumstances might never entertain the thought of so doing.

But allowing, by a stretch of the imagination, that these men may be properly qualified to enter upon their studies, we ask if it is an act of true charity to encourage them with the idea that very little money is required? A student with scanty means always has a poor chance to succeed. The question of scant money means scant time, and scant time means superficiality. Associate with these the annoyances of petty pecuniary embarrassments during student life and the all-absorbing anxiety to keep from starving after his graduation, and we can easily see that his chances for professional success are not at all promising. Still, we are informed that cheap medical education is designed to help this very class; but how it can properly and consistently do so is not quite clear to us. Of course it will be urged that there is a want for just such men as the cheap colleges may furnish. We deny the fact. The excuse for furnishing incompetent men might have held good fifty years ago, but it does not now. There is only one necessity with such a class, and that is its suppression, and the sooner we make use of one of the many means to that end the better.

CONCERNING PROCEEDINGS FOR MALPRACTICE.

An act has been recently introduced in the Legislature which is of considerable interest to all who are liable to be sued for malpractice. It provides for the filing of security for the payment of damages and costs by the plaintiff in actions or proceedings against physicians, surgeons, and dentists for damages. There is certainly a show of justice in this which it is to be hoped may be sufficiently apparent to the legislators to cause them to give their sanction to the measure. At least the physician or surgeon will not be called upon to bear the burden of every plea for malpractice which may be trumped up against him. The history of such cases fully proves that in the majority of instances of the sort the charges are unfounded, and are either made as offsets to bills for professional services, or for purposes of revenge on the part of the plaintiff, or on account of the covert connivance of some jealous professional rival. If the plaintiffs in such cases are required to give some tangible evidence of their sincerity in the matter, such suits will less commonly occur, and will be well considered before they are entered upon.

Reviews and Notices of Books.

Civil Malpractice: A Treatise on Surgical Jurisprudence, with Chapters on Skill in Diagnosis and Treatment, Prognosis in Fractures, and on Negligence. By Milo A. McClelland, M.D. New York: Hurd & Houghton. 1877. 8vo, pp. 554.

Every one engaged either in the practice of medicine or surgery is so liable to be called to legal account for alleged neglect or want of skill, that such a work as the one before us supplies a very important place. To many who have never given any study to the subject of which it treats, it will be a matter of surprise to learn how accurately the questions of mutual responsibility of physician and patient have been determined by the law. Our author has taken the greatest pains to collect in the present volume all the decisions concerning the leading suits for malpractice, and to evolve the principles upon which such decisions were founded. Naturally the questions of skill in reference to the treatment of fractures and dislocations receive a great deal of attention. In fact, the majority of suits against surgeons is in consequence of the so-called imperfect results of these cases. The abstracts of the former are exceedingly interesting, and, as they have never before been collected together in a single volume, are of the utmost value to every one who is

liable to treat this class of injuries. The same may be said of dislocations, the difficulties in the treatment of which are so liable to give dissatisfaction to the patients and their friends. The question of legal responsibility of the surgeon is one of the greatest moment, and we are satisfied that if it could be properly understood by the majority of practitioners, there would, in most cases at least, be but little ground for the plea of the plaintiff to rest upon. It is impossible even to glance at the points discussed in these decisions, as they cover a wide field of expert evidence and involve a thorough appreciation of the principles upon which any action for damages can be sustained. Suffice it to say, however, that the exercise of ordinary professional skill and of due diligence are generally all that is required of the practitioner to guard against damages. But the legal definition of what may be skill and diligence on one hand, and what may be ignorance and neglect on the other, varies greatly with different cases. It is by a careful study of such that the general legal principles upon which the distinctions are founded can be intelligently and properly appreciated. In the work before us the great variety of cases collected, with the decisions thereon, give ample opportunities for such study. But these cases are not confined to fractures or dislocations, but comprise those of the different operations in surgery and the treatment of medical cases proper which have been the subjects of malpractice suits. The author takes advantage of his opportunity by presenting some general observations upon skill in diagnosis, skill in treatment, prognosis in fractures, and negligence, which are singularly full of interesting principles and facts. Indeed, the amount of practical information contained in these chapters give the work a character for usefulness to the practitioner irrespective of the primary object of its publication. On the whole it is an admirable work, and no one who is in the habit of treating responsible or grave cases can afford to be without it. It is, in fact, just such a work as has long been needed, and we predict for it a hearty reception.

Transactions of the American Medical Association. Vol. XXVII. Philadelphia. 1876. 8vo, pp. 715.

This is a larger volume than has appeared for many years, and contains more than the ordinary amount of valuable material. The addresses were admirably adapted to the purposes of the Association, and the reports of meetings of the sections surpass those of any which have previously appeared. Their accuracy of detail is such that in reading them one is enabled to be present at the meeting, and almost take part in the discussions. The Committee of Publication certainly deserve more than ordinary credit for the interesting volume which they have given the profession, and for their excellent judgment in the selection of the papers which are published. Without desiring to make invidious comparisons, and while making the statement that all the papers were creditable to their authors, we cannot resist the temptation of calling especial attention to the contributions of Dr. Sayre on "Extension and the Plaster-Paris Bandage in Pott's Disease of the Spine;" of Dr. Woodward, on "The Micrometry of Blood in Criminal Cases;" and of Dr. Adinell Hewson on "Pirogoff's Amputation."

Twenty-first Annual Report of the Trustees of the State Lunatic Hospital at Northampton, Mass. Boston, 1877.

This interesting state document, for such it is under the Massachusetts rule of control of public charities, contains the usual valuable information derived from the experience and ability of Dr. Pliny Earle. He devotes many pages to a copious historical sketch of the views of numerous psychologists on the curability of insanity, and draws anything but sanguine or hopeful conclusions from the statistics of leading hospitals for the insane. Indeed, after a full discussion of the subject, he is forced reluctantly to agree with Dr. Thurnan, of the York (Eng.) Retreat, that in round numbers, of every ten persons attacked by insanity, five recover and five die, sooner or later, during the attack; of the five who recover not more than two remain well during the rest of their lives, and the other three sustain subsequent attacks, during which at least two of them die.

A Treatise on Hernia, with a new Process for its Radical Cure, and Original Contributions to Operative Surgery and New Surgical Instruments. By Greensville Dowell, M.D., Professor of Surgery in the Texas Medical College, etc., etc. Philadelphia: D. G. Brinton, 115 South Seventh Street. 1876.

This monograph contains a description of the various forms of hernia, the various kinds of trusses employed in palliative treatment, and the various operations which have been resorted to for producing a radical cure. The author presents his own method of operation for radical cure, and claims for it a degree of success which has not been obtained by any other surgeons. With that method the readers of The Record have already been made familiar. Whether it shall prove to be the great desideratum in this class of cases remains to be determined. The number of cases in which permanent cure of hernia has been effected by operative procedure has not afforded very great encouragement to the cautious surgeon; hence, every new plan offered is looked upon with a certain degree of incredulity.

The Preventive Treatment of Calculous Disease, and the Use of Solvent Remedies. By Sir Henry Thompson, F.R.C.S. Second Edition. Philadelphia: Lindsay & Blakiston. 1876.

This little brochure contains the practical suggestions of an acknowledged authority upon calculous disease. It is divided into two lectures; the first, on the early history and prevention of calculous disease; the second, on the treatment of stone in the bladder by solvents.

In the first lecture we have laid down a plan of treatment for the prevention of uric acid gravel which is somewhat at variance with the one more commonly employed, and consists in the use of a certain amount of blue pill, followed by mineral waters containing a goodly proportion of sulphate of soda: Friedrichshalle followed by Carlsbad. The diet must be regulated also, and the recommendation is that there should be a sparing use of alcohol, saccharine and fatty matters. The conclusion is reached in the second lecture "that there is no evidence whatever that one case in a hundred of those who have swallowed solvents for the stone has been cured of it, during all past experience down to this day." The book contains many practical suggestions regarding the diet, the use of mineral waters, the use of alkalies, injection of the bladder, etc, and is worthy of careful perusal.

The Buffalo Medical and Surgical Journal N. Y., after a suspension of three months, has commenced its regular monthly issues. The present number contains many interesting articles. Drs. Julius F Miner and Edward N. Brush are still the editors.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 28, 1877.

Dr. E. G. Janeway, President, in the Chair.

LARGE FORAMEN OVALE.

Dr. Austin Flint presented, on behalf of Prof. C. L. Ford, of the University of Michigan, a heart with a remarkably large foramen ovale. The specimen was removed by a student of the University from an adult dissecting-room subject. With a desire to save the lungs for study, the gentleman in question had damaged the heart somewhat, but fortunately had not injured the auricular septum. In the latter, Dr. Ford could distinctly trace the boundary of an opening two inches in one direction, and one and three-quarter inches in another direction. The right auricle was considerably dilated. The left had been cut away in the removal of the organ.

Dr. Flint remarked that as far as he knew to the contrary, this was the largest foramen ovale on record.

Dr. Heitzmann remarked that Rokitansky had recently published a work on malformations of the heart, in which cases were represented with an entire absence of the septum.

Dr. Flint also presented for Prof. Ford the heart of a deer, showing a bullet wound in its substance. The case had already been reported in the Medical Record (*vid.* Medical Record, vol. x., p. 173).

ENLARGED BRONCHOCELE—TRACHEOTOMY—DEATH.

Dr. John H. Ripley exhibited a bronchocele removed post-mortem from an adult female patient of the St. Francis Hospital. She entered the institution on the afternoon of Feb. 26th. Dr. Ripley saw her two hours afterwards. She was unable to lie down on account of severe and persistent dyspnœa, induced by the presence of a large tumor on the anterior portion of her neck. This growth extended from the upper border of the larynx down to the sternum, which it partially overlapped. It was more confined to the left than the right side, very hard to the feel, somewhat nodular, especially on the left side. In addition to this tumor there was a smaller one, which seemed to be attached by a pedicle farther to the left. The axillary and inguinal glands were slightly enlarged, but this was not the case with the lymphatics of the neck.

On percussion, it was found that dulness extended an inch and a half below the upper border of the sternum. It was inferred, on account of this dulness, that the tumor extended into the upper mediastinum, and in accordance with such a supposition all hopes of relieving the patient by removal of the tumor were given up. The urgent dyspnœa, however, called for the performance of tracheotomy. An incision was made, extending from the upper border of the larynx down to the upper margin of the sternum. The trachea was found displaced to the left. The wound was left open. The relief of the operation was only temporary, the patient dying the following afternoon.

At the autopsy, the tumor was found to have extended into the anterior mediastinum as low down as the bifurcation of the trachea, to have encircled nearly the whole of the larynx, and by pressure posteriorly to have nearly occluded the œsophagus. It should be stated in passing, that difficult deglutition was a prominent symptom. The diagnosis of sarcomatous tumor was made before death, and was subsequently confirmed by the microscopical examination of Dr. Edel.

A point of interest in connection with the operation was the marked decrease of the tumor after the trachea was opened. There were small secondary deposits in the lungs.

Dr. Mason referred in this connection to a case recently presented by Dr. Weir, in which the same operation was performed for a cancerous tumor in that locality, and in which tracheotomy afforded the patient a relief of several weeks.

FIBRINOUS CASTS OF THE BRONCHIAL TUBES.

Dr. Beverley Robinson presented a specimen of fibrinous casts of the bronchial tubes, which had been expectorated from a female child. The specimen was sent to him by Dr. Browne, of Syracuse, N. Y. The casts were expectorated by a female child about ten years of age. She had had an acute attack of bronchitis in September, 1876, and since that period had, at intervals of two or three days, expectorated, after a paroxysm of cough, fibrinous casts similar to those presented to the Society.

There were no physical signs of a morbid condition of lung tissue other than the fact of the presence from time to time, in the sputa, of arborescent masses of fibrin.

The health of the child remained apparently unimpaired, and, singular to relate, she was even increasing notably in strength and flesh.

Dr. Briddon referred to the case of an officer who, during the late war, was seized with urgent dyspnœa while temporarily stopping in the city. He was summoned to the case by Drs. Budd and Holcomb, with a view of performing tracheotomy. On his arrival he was shown a fine specimen of bronchial casts previously expectorated by the patient. It was of much greater magnitude than the one presented, and was the largest specimen of the kind he had ever seen. The condition of the air-passages was quite apparent, and tracheotomy was considered by Dr. B. to be useless. The patient insisted, however, upon its performance and was gratified. He died three hours afterwards.

Dr. Flint alluded to a specimen presented some years ago by Dr. Stephen Rogers; also to two of his own.

Dr. Janeway also referred to a case in his experience, and stated that the specimen was in the museum of the University Medical College.

CANCROID TUMORS OF PERINEUM REMOVED BY ELECTROLYSIS.

Dr. Edel exhibited a male patient from whose perineum he had removed by electrolysis three cancroid tumors. The first two operations were performed in 1873, the last in 1874; since which time there has been no return of the disease. He considered the patient entirely cured. The cicatrix presented a remarkably clean and healthy appearance. The different tumors removed were also exhibited.

ONE OF THE POSSIBLE CAUSES OF MITRAL SYSTOLIC MURMUR.

Dr. Janeway presented a heart illustrating one of the causes of mitral systolic murmur. It was removed from a patient who died, shortly after admission into Bellevue Hospital, from hemorrhage in the pons varolii. Dr. Peck, one of the house physicians and a very competent auscultator, on examining the patient, discovered a distinct systolic murmur at the base of the heart, which murmur was conveyed to

the left. On post-mortem examination of the heart no valvular lesions were found, but simply a small fibrinous cord, which stretched itself across the cavity of the left ventricle. To the presence of this cord was, in Dr. Janeway's opinion, due the murmur heard during life. He had met with these intra-ventricular growths before, but had not, until the present case, been able to associate with them the existence of any

AUSCULTATORY PHENOMENA.

Dr. Flint remarked that the specimen was interesting to him for the reason that it seemed to explain an hitherto unrecognized cause for intra-ventricular murmur. He was convinced that murmurs might be caused by other than valvular disturbances. One of his pupils had called his attention to an ingenious explanation for mitral murmur when no valvular lesion existed. The explanation was, that the heart with the systole came in contact with the projecting portion of the lower lobe in such a way as to produce a murmur by forcing the air from the vesicles into the bronchial tubes.

ANEURISM OF ANTERIOR TIBIAL ARTERY.

Dr. Janeway presented a specimen of aneurism of the anterior tibial, with the following history:

Wm. Dack, 47, M.; Canada; carpenter; admitted Feb. 24, 1877; always previously healthy until five years ago, when he had intermittent fever; denies syphilis. In August last had to give up work because of pain in calf of leg. This pain had been slight for three or four weeks. Had to remain in bed seven weeks, when he was able to go about and work without much pain except that of slight stiffness. The pain increased, and he was treated at a dispensary for what they called rheumatism.

Three weeks ago the pain became suddenly intense, and continued so for a day, when it became less. The leg began to swell immediately and became cold. It continued to swell until admitted to the hospital. On Feb. 23d, the foot began to turn purple, and soon after blebs appeared on its dorsal surface. On examination, the foot and leg are three times their normal size; the foot cold and purple, with some blebs upon it; the tissues of leg very tense and hard. There is some bulging of upper part of calf of leg, and pulsation of only the superficial artery could be felt over the tumor. No pulsation could be detected in either of the tibial arteries, as all the tissues were very tense. A.M. P. 115, R. 38, T. 101½; P.M. P. 120, R. 34, T. 102¾.

Feb. 25th.—Under the direction of Drs. Janeway and Gouley, an incision about two inches long was made on the inner and posterior aspect of the leg, just below the knee. Through this opening dark clotted blood was removed from between the soleus and gastrocnemius muscles.

Feb. 27th.—At a consultation to-day, it was unanimously the opinion of Drs. Wood, Sayre, Mason, Crosby, Gouley, Curtis, and Smith, that the leg be amputated.

The majority favored amputation through lower third of thigh; and this operation, with lateral skin flaps, was performed by the house-surgeon, Dr. Woodruff, according to Lister's antiseptic method. Carbolized catgut ligatures being used and left in wound, and flaps brought together by silver sutures.

Before operation P. 100, T. 100½.

In this case the house-surgeon, Dr. Woodruff, who has had the accompanying history of the case drawn up, alludes to my advising an incision:—

As I was passing through the ward, Dr. —— asked me to look at the leg. I noticed the marked tension of the tissues, the great swelling without pulsation, and advised the incision with an idea that the case was one of cellulitis. On leaving the hospital, and thinking over the case, it occurred to me that it was possibly a diffuse aneurism without pulsation. On returning, I found that Dr. Gouley, in whose service the case was, also advised incision, and then I re-examined the leg, finding, however, no positive proof of aneurism. The Dr., at my advice, put in an exploring-needle first, but only a little serum escaped. Then the incision was made with the result mentioned, which made me feel pretty confident that the condition was due to diffuse aneurism.

The leg, which I show by request of Drs. Gouley and Smith, in whose service the patient is, and who are unable to be present, shows an aneurism of the anterior tibial artery. I could, on dissection, not find this artery from its point of emergence, from the popliteal to a little distance on the anterior aspect of the interosseous membrane. There was an oval aperture in the side of the popliteal leading to the aneurism at the point at which I suppose the anterior tibial was given off. This was about one-third of an inch in length.

That is, that a true globular or anterior tibial fusiform aneurism occupied the part of the anterior tibial, between its origin and its passage through the interosseous membrane. That later it formed a false sacculated aneurism in this side, and still later, when the leg began to swell, burst into the space beneath the deep layer of the posterior fascia, on the side of which and in the space in the course of the peronei muscles, we found clotted and squamous blood, and also between gastrocnemius and soleus. The old aneurismal sac was filled with laminated fibrin and some more recently coagulated blood. The only cause for the obstructed circulation seemed to be due to the pressure of the enlarged aneurism on the popliteal artery, as the sac not only lay beneath it, but also curled up on its side.

Dr. Janeway also exhibited a specimen of

EMPYEMA WITH GAS IN PLEURAL CAVITY DUE TO DECOMPOSITION OF FLUID.

Male, age 32; admitted Dec. 22, 1876, for incised wound of forehead, the result of a fall on the street, during an epileptic attack.

January 9th.—It was noted that he was becoming shaky, muttering to himself with fever, etc. A hypodermic needle was inserted on the 7th in the right side, as a means of exploration, with no result. On the 13th it was again used, and a sero-sanguineous fluid withdrawn.

On the 15th, his chest was aspirated and fourteen ounces of pus withdrawn.

On the 17th, a deep redness appeared on the right side, and extended around on the back; some crepitation also existed in the tissues. Dr. Janeway examined the case on the afternoon of the 17th, and found adhesion of the upper lobe to chest wall. Pyopneumothorax, with distinct succussion sound below, and the cellulitis of the side as noted above. The gas in the tissue he supposed might come from decomposition, or from air which might have escaped from the lung; though there was no evidence of communication between the lung and the gas-holding pleural sac when he examined him.

For these notes Dr. J. acknowledged his *indebtedness* to the house-surgeon, Dr. Stillwell, being the abstract of a history furnished by him.

The patient died of asthenia on the 20th, at 1 A.M., and Dr. J. made the autopsy on the succeeding day.

Brain normal, with exception of a small pigmented spot in the left side of the medulla. Heart normal.

The right pleural sac showed the upper lobe adherent to the chest wall and part of the medulla. The space occupied by the rest of the lung was occupied by gas and pus; much more of latter than former. Several sloughs were found on the thickened pleura covering the lung, but no communication with lung tissue. The ribs were necrosed for about two inches from spinal column, and at this point the pleura was partially sloughy, and the tissue beneath and through this the communication existed between pleura and the cellulitis of right side. The pus had an extremely fetid odor. The left lung was somewhat congested, otherwise normal. Liver normal in size, but cirrhotic; condition granular; spleen showed evidences of former malaria; dark color, pigmented.

Kidneys appear normal; a section of the inflamed portion of right side showed the tissues infiltrated with pus.

He presented the specimen for Dr. John G. Curtis, in whose service was the patient from whom it was removed.

There were several points of interest about the case. 1st. The failure of the removal of fluid by the hypodermic syringe. This he had seen happen from the imperfection of the syringe as a suction agent, probably from the detachment of lymp, which, getting over the needle, prevented the suction force from acting. Also where adhesion of lung to the chest wall was present in different parts, from the needle entering the lung, and not the pus or serum-holding sacs. He had also seen fluid withdrawn under such circumstances, either by employing another syringe of better suction force, or else, if this be good, by introducing the needle in another site.

2d. The case was of especial interest, showing as it did an illustration of pyopneumothorax from gas developed from decomposing pus due to the sloughs in different sites. It is the second instance of pyopneumothorax which I have met due to this cause.

Correspondence.

CHEAP MEDICAL EDUCATION.

To the Editor of The Medical Record.

Dear Sir:—I do not think you are quite just in your reply to the Columbus professor of physiology in a recent editorial, where you so unqualifiedly denounce what you term "cheap medical education." You seem to think that the *high price* of medical education furnishes a sufficient guarantee for its genuineness and excellence; and, per contra, those institutions of less pretensions in regard to price, must of necessity furnish an inferior grade of learning. Did it never occur to you that the gentlemen who give instruction to students who have purchased their tickets for $50.00, are as competent in every particular to give such instruction as their neighbors of the $140.00 school? Or that the hosts of M.D.'s turned out every spring from your New York colleges are not one whit better qualified to perform their duties than the far sparser number graduated from a $50.00 Chicago house? You say the plan of cheap medical education opens the way for persons to enter the profession who, because of their ignorance, would find a proper level outside of it. If poverty and ignorance were synonymous, and wealth the standard of excellence, then, indeed, the high-priced colleges should have sway; but as they are not, and as there are fully as many rich fools as poor ones, I maintain that as many ignoramuses get into the profession because they can wield their respectable $140.00, as because they can "scrape up" a much smaller sum. Thus we see high prices do not keep out the unworthy ones; but do they not very often prove an effectual barrier to the worthy and diligent?

J. B. Stair, M.D.

Juda, Wisconsin, March 20, 1877.

THE CLIMATE OF NASSAU.

Nassau, 24th February, 1877.

To the Editor of The Medical Record.

I venture to offer two suggestions as appendices to your valuable article on the climate of Nassau in your issue of the 10th inst., which, though they can hardly claim to be within the scope of scientific inquiry, may prove serviceable to invalids proposing to visit the island.

First.—It is proper to prepare the patient for the enervating effects of the climate during the first two or three weeks of his stay. The sudden transition from the cold of the North to the heat of the tropics is almost enough in itself to account for the relaxation which even healthy visitors complain of at the beginning; but the power of the sun's rays is greater than is generally supposed, a solar thermometer with blackened bulb registering 130° to 140°, even in the winter months, and an ordinary thermometer placed on the grass marking 110° to 115°, the range in the shade meanwhile being 70° to 75°. Much disappointment is frequently felt by invalids that they not only do not rally at once upon their arrival here, but that they experience even greater lassitude than before; whereas, if they were made to comprehend beforehand that this loss of strength is only temporary, and if they came provided with such tonics as previous experience had indicated as appropriate in their special cases, the evils of unfulfilled anticipations would be avoided.

Second.—The changes of the wind should be fully as much an object of solicitude to the sojourner at Nassau as those of the thermometer. With a strong northerly wind a sensation of chilliness is noticeable that seems almost incompatible with the actual registered temperature, while an opposite result is to be observed with a southerly wind. In the first-named instance, too, the air is perceptibly drier than in the last named. In short, the effects are precisely similar to those consequent upon the changes of the wind at sea in temperate latitudes, and care should be taken to dress with this in view, otherwise the invalid is liable to colds and congestions, to which the condition noted in the first suggestion renders him extremely susceptible.

If the foregoing hints commend themselves to your favorable consideration I shall be glad to have them given publicity in such form as may be most convenient to you. I am tempted to offer them because, had information of this character been imparted to me before my arrival here, it would have saved me both trouble and annoyance.

Very respectfully yours,

J. D. Prince.

FOREIGN BODIES IN THE NOSE.

To the Editor of The Medical Record.

Dear Sir:—In the recent discussion before the Pathological Society, on the removal of a button from the nose, I see no mention of a very simple, but very

efficient, method, which has often succeeded after instruments have failed. It is merely to blow the patient's nose for him, by closing the empty nostril with your finger, and blowing suddenly and strongly into the mouth. The glottis closes spasmodically, and the whole force of your breath goes to expel the button or bean, which commonly flies out at the first effort.

This plan, which was told me by a layman, has the great advantages of exciting no terror in the child, who is perhaps always the subject, and of being readily employed at once by the parent, before delay has given opportunity for swelling and impaction. In a possible adult case, the Politzer method of inflating the tympanum might prove as serviceable, and more agreeable to the fastidious.

Yours, respectfully,

J. W.

ITHACA, N. Y., 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 18 to 24, 1877.

RANDOLPH, Jno. F., Surgeon. Assigned to duty at Fort Trumbull, Conn. S. O. 61, Mil. Div. of the Atlantic, March 17, 1877.

WOOD, M. W., Asst. Surgeon. Assigned to duty at Cantonment Reno, Wy. T. S. O. 34, Dept. of the Platte, March 13, 1877.

GARDNER, E. F., Asst. Surgeon. Assigned to duty at Camp Hancock, Dakota T. S. O. 31, Dept. of Dakota, March 15, 1877.

ANDREWS, W. C. C., Asst. Surgeon. Assigned to duty at Fort Stevens, Oregon. S. O. 22, Dept. of the Columbia, March 7, 1877.

HASSON, A. B., Surgeon. Died March 19, 1877, at Fort Trumbull, Conn.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending March 24, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
March 17.....	2	1	85	5	8	50	1
" 24.....	0	3	67	2	16	44	1

COMPLIMENT TO AMERICAN SURGERY.—Professor Langenbeek, of Berlin, in speaking of Dr. James R. Wood's cases of sub-periosteal resection, says that they are unequalled in surgical history. By special request the original specimens have been sent to the professor, to be presented by him at the meeting of the Medical Congress, of which he is President.

THE WOMAN'S MEDICAL COLLEGE.—The eighth annual commencement of the Woman's Medical College of the New York Infirmary took place on the evening of March 27th, at Union League Hall, which was filled to its utmost capacity by the friends of the graduates. Mr. Samuel Willets, the President of the College, conducted the exercises. The stage was occupied by the Faculty and the members of the graduating class. The exercises, which were interspersed with music, consisted of the administering of the Hippocratic oath to the graduates by Prof. Emily Blackwell, the conferring of degrees by the President of the college, the awarding of prizes to Victoria Ann White and Kate Johnson Jackson, the former receiving a medal and the latter a case of surgical instruments; a valedictory address by Miss Jackson, and addresses by Rev. Dr. Howard Crosby and Prof. Mary Putnam Jacobi.

PROPHYLACTIC FOR VENEREAL DISEASE.—A subscriber writes:

"NEW YORK, March 17, 1877.

"DEAR DOCTOR:—Will you give us an idea as to how the 'Prophylactic for Venereal Disease,' given on p. 176 of to-day's RECORD, is to be used after being '*filtered*'? Is it to be injected into the vagina, or is the penis to be wrapped up in the mixture, or injected into the urethra? It might be used internally too without harm. If it is good for anything, let us know how to use it, and oblige."

[The authority from which we quoted, further states that "this simple, rational, innocuous, and non-irritating lotion is to be directly applied to the virile member, upon which it forms a protecting stratum," a sort of *baudruche à vernis*, as the French would say.—ED.]

COLLEGE COMMENCEMENTS.—During the recent commencement season Jefferson Medical College, of Philadelphia, graduated 198; the University of Pennsylvania, Medical Department, 121; Women's Medical College, Philadelphia, 15; Buffalo Medical College, N. Y., 30; Rush Medical College, Chicago, 103; Louisville Medical College, 47; Medical Department, University of Louisville, 27. The returns are not yet complete; other colleges to be heard from.

PUERPERAL FEVER AND POST-MORTEM EXAMINATIONS.—At the meeting of the New York Pathological Society, Feb. 10, 1877, Dr. F. V. WHITE asked the question whether it was safe to attend a parturient woman immediately after performing an autopsy.

Dr. JANEWAY did not think that there was any special danger in so doing, and related the following remarkable circumstance: He was called in great haste to see a case, the nature of which was not at the time explained to him. On arriving at the house he found a woman the subject of placenta prævia, with active hemorrhage. Having that afternoon made a post-mortem examination of a case of puerperal peritonitis, he found himself in a dilemma, and declined to have anything to do with the case. He sent for a medical friend, who could not come. In the meantime flooding was going on, and something had to be done to save the woman's life. He was compelled to detach the placenta and allow the head to come down. The patient made a perfect recovery without an untoward symptom. He believed that there was more risk under such circumstances in attending cases of erysipelas in conjunction with obstetric practice than in making autopsies or in dissecting. In a word, the living poisons were more dangerous than those taken from the dead body.

Dr. BRIDDON concurred in the latter opinion, and stated that he had frequently attended confinements while engaged in dissecting, and without any bad results. The late Prof. Watts was actively engaged in obstetric practice during the whole time he was teaching practical anatomy.

Original Communications.

ON THE UNITY OR DUALITY (?) OF SYPHILIS.

By J. L. MILTON,

SENIOR SURGEON TO ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, LONDON, ENGLAND.

Part I.

A REVIEWER having done me the honor to speak of me in an American medical journal as a staunch dualist, I take the liberty of replying to his friendly challenge, and of stating my reasons for holding, though in a somewhat modified form, the opinions ascribed to me.

As a question of prognosis and treatment, I at once subscribe to the doctrine of duality. In my practice, true, multiple soft sore, auto-inoculable up to the stage of repair, and especially if accompanied by suppurating auto-inoculable bubo, has never been followed by a distinct train of secondary and tertiary affections, such as lepra, phagedenic ulceration of the throat, sarcocele, and nodes. In a very small percentage of cases I have met with some suspicious symptoms of after-disease, which seemed referable to the lesion, but never where its reproductive qualities had been tested by the lancet. Looking, then, for convenience sake, solely to the results of personal experience, I have for years past never hesitated to say, when asked the question by a patient, and when I have reproduced the soft, perforating pustule by grafting, that there would be no secondary disease, and that the case simply required proper local treatment with attention to the health. On the other hand, the true hard, papular chancre is so constantly followed by systemic disease that in the course of many years, while continually treating syphilis, I have never met but with two cases where I could quite satisfy myself that the patient had entirely escaped the consequences. As such exceptions are too rare to count for anything in matters so purely practical as the treatment of disease, the surgeon may safely say, in reply to the question which the patient is pretty sure to put, that there will almost certainly be constitutional symptoms requiring constitutional treatment.

Had, then, the revival in its altered shape of the old opinion, so ably argued for by Bassereau, Rollet, and others, borne no other fruit than that of enabling us, by its means and by the new light which their valuable labors have shed upon the subject, to lessen the uncertainty felt by surgeons on the question of prognosis, these gentlemen would still have deserved all praise. Previously, though men knew that out of every twenty cases of primary sore, a considerable number would not be succeeded by any affection of the system, they were quite at sea as to the future of any particular case. Hardness of the initial lesion was generally accepted as a sign of mischief, but here all approach to certainty ended, and no man felt sure that the very opposite condition might not be followed by results quite as grave. Matters stand now on a different footing, for although the dual theory still leaves a good deal unsettled about the border-land lying between the two kinds of sore in certain phases, it has fairly established the conclusions to be drawn from them in their typical shape. It has overthrown the dangerous precept of M. Ricord, that chancre is always inoculable up to the time of repair, and while it confirms the teachings of experience as to the significance of hardening, shows in strong relief what mere experience never taught, the strictly local nature of the opposite condition. True, the line of fire drawn by the French dualists has been broken through, but these great salient points of their theory seem destined to last.

On the mere abstract question of identity I have never expressed an opinion, and if I do so now it is not with the intention of putting forward any positive views, but of offering, in the shape of a simple contribution, the result of my own observations and experiments. The remarks, therefore, which follow are essentially clinical, and though I am obliged to take the assailable points of argument from the writings of authorities, the answers to them are, in a great measure, drawn from the records of the case book. For my text I have chosen the observations of M. Melchior Robert, who has been pointed out by M. Ricord as the "champion zélé" of unity, to whose credit it must be said that, while observing the most enlightened tolerance towards the views of others, he strenuously and consistently upheld his own theory at a time when the dual doctrine was widely accepted, not only in France, but in most countries where medicine is studied, and when that of "one poison" might be described, without going out of the way to strain after metaphor, as fairly sinking under the attacks of so many able assailants. M. Robert's opinions may not exactly represent those of the more advanced unicists in the present day, but I think they embody all essential points.

M. Robert first reviews * the statement made by M. Ricord, in 1854, that inoculation from soft sore had always yielded soft sore, and that the only trial of hard sore had produced hard sore, so that possibly there might be two kinds of virus. From this germ sprang the pure dualism of M. Bassereau, which regards the two poisons as distinct both in origin and nature, and that of M. Clerc, which makes the chancroid an offshoot from chancre preceding it, being in fact nothing more nor less than the one virus theory in another shape—a discrepancy which M. Robert proposes † to settle as if it were a social or political difficulty—that is to say, by a little mental concession. He then points out ‡ that while three of the cases relied upon by M. Bassereau to prove the descent of infecting chancre from infecting chancre are of a nature to awaken suspicions in his—M. Bassereau's—mind, no attempt beyond simple allegation was made to show that chancroid always springs from chancroid. The dualism of M. Diday then follows, with induroïd chancre, a variety of simple sore, simple in its form, but infecting by nature.

M. Robert next shows that M. Ricord, while welcoming these new tenets, still paused before a difficulty which beset all attempts to decide the question. This difficulty was the determining whether soft chancre, "the hybrid product of a pre-existing diathesis and indurated chancre," was by nature and origin the same thing (*l'analogue*) as simple chancre. To decide this problem it would be requisite to bring together the person syphilized previously and affected at the time with soft chancre, the person from whom the present affection was derived, and lastly, the person to whom it was transmitted. This double proof had not yet been made public at the time when M. Robert promulgated his views, and, if made public, could only complicate the question still farther, seeing

* Nouveau Traité des Maladies Vénériennes, 1861, p. 298.
† Ibid., p. 300. ‡ Ibid., loc. citat.

that its starting-point is inherently vicious. Numerous observations, M. Robert continues, had shown that, while soft sore is transmitted unchanged from one virgin subject to another, soft chancre, developed on a person who had had syphilis, might convey to another, who had never suffered from this disease, hard sore and constitutional symptoms; but this he regards as insufficient evidence.

The next subject brought under notice is the series of theorems laid down by M. Ricord in his "Leçons sur le Chancre." These are: 1. That in virgin subjects simple chancre is transmitted as simple chancre, and 2. Hard chancre in the shape of hard chancre. 3. That in those who have had syphilis hard sore is conveyed in the form of soft sore resembling simple chancre in appearance, while (4) soft sore, emanating from syphilized patients may be communicated at one time in the guise of simple, in another under that of hard chancre; and that this difference is due to differences of origin, so that M. Ricord is, according to his paper, a dualist, which character I think he hardly sustains in his succeeding work.* The regret, therefore, which M. Robert expresses † at finding that his master had abandoned all the teachings of experience to embrace a theory of a day's growth, was to be alleviated before many years had passed.

The special reasons for opposing the dual theory are next set forth by M. Robert in a series of cases. These are too bulky and numerous to admit of my giving them at length, and I therefore restrict myself to five of the more important, which, however, are here very briefly related. These cases are followed by thirty-one theorems, from which also I have extracted those chiefly bearing on the subject under notice. I propose to discuss these as they are given, and if, in doing so, I shall be found diverging from a strict line of argument, it is because I am to a great extent fettered by the method which M. Robert himself pursues.

1. The first case runs as follows: A man contracted chancre, succeeded by the whole train of constitutional symptoms. Four years later, while still under the influence of the venereal diathesis, he contracted a second chancre, and from this infected a young girl who had as a result multiple sores on the right larger labium, followed by multiple ganglionic enlargements in the corresponding inguinal region, succeeded in their turn by papulæ, impetigo, alopecia, and so on. The case, though so prominently put forward by M. Robert, has, so far as I can see, no bearing on the question of duality. It is opposed indeed to the doctrine that syphilis only occurs once in life, but as this doctrine is being continually refuted by the facts of every-day existence, it will be unnecessary to dwell longer on the point.

The second and third of M. Robert's cases, which are not to be understood as quoted here, strictly resemble the first, and he says they show that "soft chancre developed on a person who has had syphilis, may communicate hard sore followed by constitutional disease." The fact of such an inference being drawn from such premises shows how imperatively necessary caution is. It assumes that hard sore undergoes a change of this kind in syphilized persons, a fact about which I do not feel at all satisfied. Any such law is certainly not unexceptional, for hard sore appears twice in the same patient, and if it were even well established, would not bring us any nearer the mark as regards unity, seeing it would be first of all necessary to show that chancroid, thus induced, had set up soft, perforating, auto-inoculable sore in another person. M. Robert's cases lend a certain amount of support to the opinion that syphilis does exert an influence which may modify subsequent infection, but that is all. The strength of an argument is after all only the strength of its weakest part, and I am compelled to say that this is weak here as concerns the point aimed at.

It will be observed that the events spoken of are limited to the occurrence of a sore, either true chancroid, or hard sore so changed as to look like it, in a person who has formerly had hard sore, the change being due to a previous attack of syphilis. I have said that I do not feel at all satisfied with the soundness of such an assumption, and my reason for doubting it is that soft sore occurs frequently enough in persons who have never had syphilis, and this even where subsequent events show they are not proof against syphilitic infection.

A gentleman attached in a lay capacity to a large hospital, but living in chambers with a patient of mine, contracted a painful soft sore which, however, was not tested by the lancet. Its appearance was in due time followed by that of a large and painful bubo. The patient fancied that he knew how to treat his case as well as any surgeon, and did so with the result of converting the bubo into a quagmire of matter, which he very cleverly opened with a knitting-needle sharpened at one end.

Nearly six years later he consulted me about a small, hard papule on the inside of the prepuce, just at the reflexion on the glans. There was no secretion from it, but I pronounced it to be syphilis, an opinion which he utterly scouted, as the sore was so different from the first; especially he remarked that it was painless, and not attended with bubo. However, he was quite satisfied when a few weeks later distinct syphilitic lepra broke out.

I mention this case, not because it presents any features of novelty, but because I had good opportunities of watching the course of both attacks. I did not indeed attend the patient professionally in the first attack. I did not see the chancroid at all, nor the bubo till it was nearly healed; but his account was so clear that it might, I fancy, be accepted. In the first instance the patient suffered a good deal, and was laid up with the bubo; in the succeeding attack there was no pain. No secondary symptoms followed the first infection. I was in the habit of seeing the patient very frequently, at times almost daily, and often spoke to him about his complaint; yet I never heard or saw anything which led me to think he had a symptom of secondary disease. In the second attack, unmistakable after-effects showed themselves within three months from the date of the suspicious connection. How then did this difference arise? This gentleman had certainly not worn down his constitution by debauchery. He was temperate as a rule, and in his habits methodical to an extreme; his position in life was easy, so that there was no argument of wear and tear to appeal to, and he had not been laid up for a day since the last infection. It is, therefore, difficult to understand how one and the same virus should, without any visible cause, produce effects so widely different. Finally, I may remark that in the very few instances which I have seen, where the same person had hard sore twice, the second one always formed quickly. This did not happen in the case just related. In corroboration of the statement as to the more speedy evolution of the second hard sore, I venture to quote the two following cases which I watched with interest on account of the coincidence they presented.

On the 5th of December, 1873, I was consulted in the

* Lettres sur la Syphilis. † Op. citat., p. 303.

evening by a gentleman for a sense of uneasiness in the urethra, which he thought arose from a suspicious connection indulged in two nights previously, and which, I may add, ended in a slight discharge. He assured me this was the first time he had ever given way to any temptation of the kind for many years. On the 14th of the same month he showed me, on the right and inner side of the prepuce, which in him is rather long, nearly covering the glans, a pretty large, fully formed, papular chancre with eroded surface, which certainly seemed to have arisen from the aforesaid connection, as the patient again avowed that he had had no other. It was seated about half an inch from the free edge of the foreskin, and in the centre of the right limb, counting from back to front. This, was, he believed, the very spot where a hard chancre had formed ten years before, of which lesion, however, all traces had long disappeared. The papule was not so hard as such formations usually are. I cauterized it freely with anhydrous soda, and it healed, or rather shrank, with much greater rapidity than these spots generally do, having by the 18th so far subsided that the patient, who was very attentive at first, now came to the conclusion that it required nothing more, being "on its last legs." When I last saw him, Jan. 13, 1874, about the case of another member of his family, he told me that he was "all right again," but I had no opportunity of verifying this statement. Now, nearly six years previously I had taken leave of this gentleman, after a long and irregular attendance on his part for constitutional syphilis, the symptoms noted down by myself for this period being syphilitic pains, blotches, sore throat, and indolent bubo, dating from the chancre spoken of.

In the summer of 1866, while this gentleman was going through a sharp course of mercury, I was also treating a gentleman for copious syphilitic lepra derived a few months previously from a sore as hard as we ever see it, and for which I had myself attended him; and the singular coincidence spoken of is, that on February 2, 1874, only twenty days after I had last seen the other patient, he also consulted me for hard sore, fully formed, which dated, as nearly as I could make out, from intercourse on the 12th of January. It, too, though round in form, with sloping edges, was softer than the former, which I had particularly noticed, as had also the patient. I inoculated from it, but without any result, and the patient now reminded me that I had done the same thing with the previous sore. On the 9th of February, distinct enlargement of the inguinal glands of one side was made out, but many months later no other symptoms had followed; in referring to which the patient, who had suffered much from emissions, obstinate gleet, stricture, and bad orchitis, and whom I had cauterized both externally and internally, and had blistered on the perinæum, scrotum and penis, grimly remarked that he thought he had already had "almost enough of such work," and that he must have been "a fine subject for experiments."

In all the cases that I have seen of multiple, autoinoculable soft sore with bubo of the same character, the patient was, as regarded real syphilitic infection, a virgin subject. Judging, then, from the narrow sphere of one person's observation, I feel bound to scrutinize with caution histories of chancroid after chancre. I do not deny such an occurrence, but I distinctly say that I have never met with it, neither have I read a case without some valuable point. In some degree this immunity may be due to the fact that a man who has gone through the ordeal of secondary, and perhaps tertiary disease, exposes himself less to contagion, and is more careful in the way of washing and cauterization, than an inexperienced person might be; in part, to the possibly lower infecting power of chancroid. The latter suggestion may appear fanciful, and I have no evidence to support it beyond this, that, in the cases I have noted down, where these means had been put in force and where yet infection followed, the result was always a hard sore. Be the explanation, however, what it may, the rarity of chancroid after chancre remains in my practice as I have put it.

From what has now been said the reader will see that I utterly reject the doctrine of soft sore being in any way due to a foregoing attack of syphilis. The latter may have the power of so modifying the constitution that a sore which, in a virgin subject, would have run the usual course of chancre, now takes on the look of chancroid, but I have seen nothing that proves it, and a good deal that makes me doubt the fact. In many persons a certain amount of deterioration in the tissues, temporary or permanent, ensues under the combined influence of syphilis and mercury, such as a weak, irritable state of the nervous system, deposit of pigment, superficial ulceration of mucous membranes, which I need not touch upon generally, but which locally manifests itself in two classes of symptoms the reverse of chancroid. One of these, often prominent, is a disposition in the site of the primary sore to take on hardening again, sometimes after a lapse of years; another, not so well marked, in parts abraded during suspicious intercourse, to assume an appearance like that of impending superficial sloughing or phagedæna, or perhaps hard chancrous abrasion; a problem left unsolved, owing to the free use which has almost always been made of caustic. I have cauterized a patient for as many as five attacks of this kind within five years. Inoculation from them has, in my hands, always yielded negative results.

But I believe there is good reason to infer that original difference of constitution, in some persons, so modifies the course of events, that a sore which would naturally have been hard runs its course without taking on the characteristic induration, and that this fact, if fact it be, is the key to the enigma. For the purpose of exemplifying this position, I select two cases where this modified chancre appeared in parts often exhibiting the most characteristic forms of induration: the thick, hard, defined circular welt, and the parchment hardening.

Several years ago, in a paper read before the Medical Society of London, I mentioned the particulars of a case where severe constitutional disease followed a small sore seated on the neck of the glans and adjoining part of the prepuce. The patient, a strong, and, according to his account, healthy man, but of an earthy look, and an unusually sluggish temperament, was under my care for stricture at the time he contracted the sore. It was not larger than a very small split pea, oval, shallow, and so free from induration that I could not believe it to be chancre. It looked almost as if a small strip of mucous membrane had been torn or dissected off, and healed without much suppuration, yet it was quickly followed by formidable crusted eruption on the scalp, severe iritis, and abscesses round the rectum, at which stage I lost sight of the patient. Somewhat similar narratives are given by Mathias, Robert, etc.

Perhaps it will be said that this was, after all, merely common chancroid and secondary disease. To this view there are strong objections. The sore, though soft, was solitary and painless; it never took on any of the signs of inflammation; it was favorably seated

for inoculating the opposite surface, yet it did not do so; it produced no painful swelling of the groin, and it suppurated very scantily.

(*To be Continued.*)

ON THE THERAPEUTICAL USES OF SALICYLIC ACID AND ITS SALTS.

By S. HENRY DESSAU, M.D.,

ONE OF THE DISTRICT PHYSICIANS TO THE N. Y. DISPENSARY, AND ONE OF THE PHYSICIANS TO THE OUT-DOOR DEPARTMENT OF THE NEW YORK FOUNDLING ASYLUM.

Salicylic Acid, the newest febrifuge, also the newest therapeutical agent, has proved itself, in the hands of competent high authorities, of such unquestionable value in the treatment of disease, that it has rapidly and justly taken a high place, and, it is safely predicted, a permanent one, in our Pharmacopœia. Although it is not quite two years since it was first brought to the notice of the profession by Dr. Butt, of Basle, as an internal remedy, almost every number of a medical journal already contains an article upon the virtues of salicylic acid. This is as it should be; and as I have had fair opportunities to test the value of the new agent in a large number of dispensary patients treated at the bedside, I regard the contribution of my experience with, and judgment upon, the new remedy of sufficient interest to the medical profession to warrant me in presenting this paper for publication.

I have employed the salicylic acid since the 13th December, 1875, and have up to date (March 16th) used it in 77 cases, including the following diseases:

Articular Rheumatism.—All cases of this painful affection, 34 in number, have been treated with the salicylic acid, either pure or dissolved in carbonate of soda, since April, 1876. All were speedily benefited, and the majority relieved in a much shorter time than by any other remedy I have used. The first case of this disease in which I employed the salicylic acid was that of a man 37 years of age, who had almost every joint of his four limbs affected. It was his first attack. He had been sick about two days. I gave him 60 grains of the pure acid mixed with molasses at one dose, at about noon-time, and the next morning I found him entirely free from pain and any swelling in the joints. He said he felt somewhat "stiff." He was kept in bed for several days more, when the pains not returning, he was allowed to leave his bed as cured. Since then I have not given such heroic doses in articular rheumatism, having found that smaller doses, hourly repeated, are of equal service. Neither do I now employ the pure acid, having found that it frequently produced irritation of the alimentary canal in the form of vomiting or pain in the intestines. I now use a solution of 30 grains to the ounce, dissolved with the aid of equal parts of the carbonate of soda, and flavored with some of the essential oils. According to Stricker, a chemically pure preparation of the acid is completely soluble in water and alcohol. This preparation is obtained by repeated crystallization. It is no doubt difficult to be obtained in this country. Of the before-mentioned solution I give a tablespoonful every hour, equal to 15 grains, until there is relief from pain or the patient complains of buzzing in the ears, when it is decreased to every two or three hours. The longest time that any of the 34 cases have remained under treatment for the same attack was three weeks. This was in only one case—an old toper. In the vast majority of the cases they were able to attend to their daily avocation in one week's time. In three of the cases there were relapses, which were slower in succumbing to the treatment than the original attacks. In none of the cases were there any cardiac complications, at least of recent origin.

In this connection, it may be interesting to refer to an article by Dr. C. W. Brown, entitled, "Analysis of 106 Cases of Rheumatism treated with Salicylic Acid" (*Boston Medical and Surgical Journal*, Feb. 8, 1877), which contains some highly valuable statistics regarding this subject: "The average time for relief was 1.46 days; to complete cessation of pain, 2.85 days. The average amount of acid taken to produce relief was 1.54 grains; amount required to produce complete relief from pain and mobility of the joints, 531.22 grs. to each patient. Average time during which the acid was taken by each patient, 6.22 days; average number of days in hospital, 18. Two cases died of cardiac complications, developed before treatment began; 18 cases had one relapse, 3 had 2, and 1 had 5 relapses. The heart became affected while under treatment in 4.76 per cent. in cases where the complication was especially looked for. The acid was given in pill form, 3½ grs. each, made with honey or molasses, in doses of 10 grains hourly repeated until relief was given, when it was reduced to every 2 or 3 hours."

When I compare the salicylic acid treatment of acute articular rheumatism with the alkaline, the blistering, the muriated tincture of iron, the ammonia or the colchicum treatment, all of which I have fairly tested, I unhesitatingly give the preference for speedy and decided success to the first named. It cannot be doubted in my own mind that salicylic acid is destined to supersede all other remedies in the treatment of acute articular rheumatism.

Diphtheria.—I have treated 14 cases of this disease with the salicylic acid, 3 of which died. In one of the fatal cases, the expectant treatment was followed up to the third day of the disease, upon the suggestion of one of the most prominent and highly-honored members of the profession in this city. The symptoms in the meanwhile became so alarming that my conscience would not allow me to dally further with the case. I then gave the salicylic acid in powder form in small doses repeated every two hours. The stomach soon became so irritable that neither the acid nor food could be retained, and I then gave the acid in solution, but with no better result. Death took place on the 10th day of the disease. In a second one of the fatal cases, the disease had existed in a severe form for five days before I was called in. I gave 7½ grs. of the acid in powder every 2 hours, which was well retained, and afterwards about 5 grs. in solution as often repeated, but death took place on the 9th day of the disease. In the third fatal case I was not called in until the day before death took place, which was the 8th or 9th day of the disease. All of these cases died from exhaustion. Every case of this terrible enemy of infantile life, that I have seen in the commencement of its approach and fought with the salicylic acid, has terminated in a victory for the treatment. I do not confound cases of diphtheroid pharyngitis with true diphtheria in stating my cases, as I will show further on in this paper. I have treated numerous other cases of diphtheria at the New York Dispensary with the salicylic acid with a like favorable result, when seen in the early stages of the disease. In the light of recent theories as to the nature of the cause of diphtheria, advanced by various German authorities, namely, the germ theory, it would appear that salicylic acid is the scientific remedy for this disease. Letzerich has demonstrated that the movements of bacteria and micrococci, fungi obtained from the urine of children suffering from diphtheria, were ar-

rested by a few drops of a weak solution of the salicylic acid, and also destroyed by a stronger solution, after an interval of five months. The antiseptic properties of the salicylic acid in surgical practice are beyond question. The salicylate of soda, however, has little or no antizymotic power locally applied, yet when given internally it acts with the same effect as the acid, with the advantage of not disturbing the stomach nor intestines. Professor Binz, of Bonn, explains this apparent anomaly by demonstrating that the carbonic acid gas, derived from the destruction of body tissues, and contained in the blood, has the power to set free the salicylic acid contained in the salicylate of soda. Binz concludes that this change does not necessarily take place in the blood, but in the acid-producing tissues, such as the glandular organs and lymphatics. He asserts that salicylate of soda within the organism has a power to paralyze the development of bacteria, the supposed disease-producing ferment or *materies morbi* of specific fevers, greater than that of either carbolic acid, quinine, boracic acid, or alcohol, and almost one-third as great as that of the free salicylic acid. Salicylic acid remains in the blood for a considerable length of time, and is given off again, partially, in an unchanged condition.

Erysipelas.—In this disease, especially affecting the head and face, I have used the salicylic acid in light cases. All were of a severe form and had existed from two to eight days. In all of the cases the cure was rapid and permanent, an improvement being observed in twenty-four hours. The cure was generally complete in from two to four days, no extension of the disease having taken place after treatment was commenced.

The salicylic acid, no doubt, destroys the germ ferment upon which the production of erysipelas depends.

Scarlatina.—Eight cases of this disease have been treated with the salicylic acid, with one death, which took place at the end of the third week, from pulmonary œdema. No acid had been taken in this case for two weeks previous to the accession of the pulmonary complication. The remaining cases made favorable recoveries, one being a severe case complicated with diphtheria. I cannot say that recovery was in any way hastened in any of these cases, but the fever was kept at a minimum which certainly added greatly to the comfort of the little patients, besides preventing any of those mischievous complications that almost always attend a high febrile action in scarlatina. The remedy was not administered as actively as it was in the treatment of rheumatism or erysipelas, otherwise a different result as to duration might have been observed. I shall make further investigations in this direction.

Typhoid Fever.—Seven cases of typhoid fever were either partially or entirely treated with the salicylic acid. These were all but one, in children under fourteen years of age. In one case, seven years of age, treatment with the salicylic acid was begun on the seventh day of the disease with seven and a half grain doses in powder every hour. On the eleventh day of the disease the temperature in the rectum at noon being 104⅖° F. the dose was increased to ten grains every hour. The temperature was normal on the thirteenth day. In another case, fourteen years of age, attended with a profuse eruption and palpable spleen, temperature 103¾° F., treatment was commenced on the eighth day with forty grains of the salicylic acid in powder mixed with molasses, taken at one dose in the forenoon. The temperature was reduced, and no more of the acid was given until the tenth day, when it was resumed in fifteen-grain doses every two hours. There was no rise of temperature after the twelfth day. All of the other cases, but one, which was sent to the hospital after the second day of treatment, made favorable recoveries, but the duration of the fever was in no material degree shortened. This was probably due to the manner of administering the remedy, as small hourly doses were given. I am satisfied that Dr. Ewald's statement (*London Practitioner*, March, 1876), that the minimum dose of the acid required to reduce the temperature effectually in typhoid fever (for an adult), seventy-seven grains at one dose given at midday is in general terms correct. The entire paper of Dr. Ewald in the journal mentioned is highly interesting.

Diphtheroid Pharyngitis.—This term is applied by me to a severe form of pharyngitis, sometimes attended with some enlargement of the tonsils, and small exudative deposits, opalescent in character, upon the tonsils. There is high febrile action, great depression of energy, and intense pain in the pharynx upon swallowing. I have met with numerous cases of pharyngitis of this nature during the prevalence of diphtheria. Three cases of this description were treated with a solution (1 to 300) as a gargle, with instructions to swallow a part of it before spitting it out.

All three of the cases were well in less than two days.

The beneficial effect of the salicylic acid may be explained in these cases by the suggestions of Mr. J. A. Erskine Stewart (*Edinburgh Medical Journal*, Nov., 1876), who regards salicylic acid as an antiseptic, deodorizer, and *astringent*, and that it produces a specific action on the mucous membrane of the mouth, nose, and *throat*.

Of the remaining three cases in which the salicylic acid has been used by me, two were cases of *puerperal septicæmia* and one *diphtheritic stomatitis*. In the former the fever was decidedly reduced, and all pain from the abdomen disappeared after administering for two or three days the acid in solution in fifteen-grain doses hourly repeated. In the last-mentioned case, a child three and a half years old, the acid was used as a wash with quick success.

As the salicylate of soda has the same happy effect in the treatment of specific diseases as the pure acid, and as it has the advantage of being readily soluble in water, it will no doubt take the place of the acid as a more elegant preparation. I have lately used this salt altogether, prepared offhand in the form of the solution mentioned under the head of articular rheumatism. The only objection to it in this shape is, that it turns dark upon standing for any length of time. Amongst some of the physiological symptoms produced by the acid and observed by various writers, are nausea, vomiting, burning in stomach, pain in bowels, headache, ringing or buzzing in the ears, deafness, numbness and prickling, loud, deep, and sighing respiration, strange restlessness, gradually increasing to delirium, not unlike that of delirium tremens; involuntary evacuation of urine and fæces, slow, laboring pulse, and olive-green color of urine. To these symptoms I may add dizziness and a slight bleeding from the throat, which occurred in one of my cases after using the pure acid.

81 Varick St.

Pathological Transactions of the Chicago Medical Society (Number 2) contains a description of the following cases:

Epithelioma of Hand, by Dr. T. P. Seeley; Cerebral Embolism and Thrombosis, by Prof. Henry M. Lyman; Hydatidiform Degeneration of the Chorion, by Dr. C. W. Earle; and Tuberculosis in the Lungs of a Canary Bird, by Dr. I. N. Danforth.

Reports of Hospitals.

THE UNIVERSITY HOSPITAL, PHILADELPHIA.

Notes of Practice and Peculiarities of Treatment.

GOITRE.

Within the past eighteen months, some twenty-five cases of this very interesting disease have come under the notice of Dr. Roland Curtin, Chief of the Medical Dispensary staff. Twenty-four out of the twenty-five have occurred in women, and in most cases have been intimately connected with some uterine trouble. The successful mode of treatment has been by hypodermic injections of from six to ten minims of a solution containing ninety-six grains of ergotina to the ounce of distilled water. The injection is repeated two or three times a week, for the space of from four to six months, when the gland becomes thoroughly hardened. The gland begins to shrivel with the stoppage of the injections, and very soon returns to its normal size. Ergotina is of no value in bronchocele, but only in cases of simple enlargement of thyroid gland. The injection is attended with very little pain, which pain is generally local, or referable to the origin of the sterno-cleido-mastoid muscle.

TÆNIA.

Tape-worms have been completely removed, head and all, by large electuaries of pumpkin-seeds followed by kamela, in doses at first large and then gradually lessened to three grains before meals. The diet during the early active treatment is of course exceedingly restricted.

PARACENTESIS.

Cases of this kind are cured by injections of from one to three drachms of Lugol's solution through the drainage tube.

The obstetrical wards are under the charge of Prof. Wm. M. Goodell.

ANÆMIA AND CHLOROSIS.

Dr. Goodell believes in the tonic properties of corrosive sublimate used in connection with arsenic in the treatment of anæmia and chlorosis.

The following prescriptions embody his practice in these diseases.

℞. Hydrarg. Chloridi Corrosiv..... gr. i.
Liq. Chlo. Arsenitis..... f ʒ ss.
Mis. Ferri Chlo. } each..... f ʒ ij.
Acid. Muriat. Dil. }
Syrupi..... f ʒ iij.
Aq., q. s. ad..... f ʒ vi.

S. One tablespoon to be given after each meal. The treatment must not be continued more than three weeks at a time.

The Doctor also uses Blot's pill as prescribed by Dr. Niemeyer.

R. Pulv. Ferri Sulph..... ʒ ij.
Potas. Carb. Puræ..... ʒ ij.
Syrup. Acac. q. s.
M. et in pilulas xlviii., divide (48).

S. To be given daily in doses increasing until three pills are taken after each meal, which gives the large amount of gr. 22½ of the dried sulphate of iron per diem. Dr. Goodell has found all statements made by Dr. Niemeyer with regard to these pills true.

DYSMENORRHŒA FROM STENOSIS AND FLEXION.

Dr. Goodell very rarely incises the cervix uteri in these cases. By placing the patient under ether, and by using very powerful dilators, whose blades do not feather, he finds that it is rarely needful to use the knife. He has operated upon many cases of this kind before the class during the winter session just past with success.

SUBINVOLUTION OF UTERUS.

Sponge-tents are introduced in this affection and followed by the intra-uterine application of *fuming* nitric acid, applied on cotton wrapped around an aluminium sound.

OPERATION FOR OVARIAN CYST.

An ovarian cyst was removed per vaginam from a girl of twenty-four, in the Obstetrical Clinic, last week. This is the *fifth* time that the operation has been performed. The particulars are as follows. The tumor filled Douglas's pouch and could not be pushed up into the abdominal cavity. It so flattened the urethra that the bladder could not be emptied without a catheter. The tumor was found on examination to be adherent to the womb, which was so flattened out as to measure five inches in length. The girl was put in the position for the operation of lithotrity, which is Dr. Goodell's favorite position in operations for vesico-vaginal fistula. An incision was made, and about two quarts of exceedingly fetid pus were withdrawn from the cyst, which was with great difficulty subsequently brought outside—many adhesions needing to be broken. The cyst was now found to have no pedicle, and was firmly adherent to the whole fundus of the uterus. As a ligature could not be thrown above the cyst, the left broad ligament was transfixed just above the cyst, and a double ligature tied on each side of the base of the tumor. The operation was performed at an early period in the progress of the case on account of the pressure, troubles, and very serious septicæmic symptoms which had arisen. The temperature before the operation was 102½°, and the pulse very feeble and beating at 125. Since the operation, the temperature has been under 99°, and the patient gives promise of great reduction in pulse rate.

SPINAL ACCESSORY SPASM.

Dr. H. C. Wood, Clinical Professor of Nervous Diseases, has lately had under treatment two cases of the above-mentioned nervous affection. European authorities state that this disease is incurable. Dr. Wood succeeded in curing one case—the other is still under treatment. In the first case the spasm was tonic in its nature, the head being drawn down to its fullest extent, and maintained in that position. The spasm, in this instance, was dependent on an inflammation near the origin of the phrenic nerve. The treatment was by hot irons over the nape of the neck, and over the contracted muscle. The heat used was intense, and only lightly applied, so as not to produce a very deep eschar. Iodide of potassium was administered in doses small at first, and gradually increased to the production of *iodism*. The case was completely cured in the course of a few months; the man has since been able to perform active work. The spasm has recurred only twice, and has in both cases been entirely arrested by the use of hot irons, which, according to patient, did not cause as much pain as a blister.

In the second case the spasms were clonic—sometimes the man was free for a few hours, then he would again have thirty or forty spasms in a minute. The

spasm was functional, and allied in its nature to hysteria, though in a man. It implicated the phrenic nerve and the diaphragm. There was a spot over the spleen, and one over the hepatic region; touching either of these spots produced violent spasms. The second case was treated with hot irons, without much success, though they were very freely used. Nitrite of amyl cured temporarily. Strychnia, injected hypodermically and *homœopathically*, decidedly aggravated the case. The man is still under treatment, and very excellent results are being obtained by the injection of small but increasing doses of atropia directly into the muscle. Large doses of arsenic with iron and the bitter tonics are also being used.

CHOREA.

Da Costa's bromide of iron treatment for this disease has been given a fair trial at this hospital, and under Prof. Wood's supervision, and has utterly failed. In a limited number of cases etherization of the spine was tried with but poor success. Chloral, particularly in conjunction with bromide of potassium, is of great value in obstinate cases. The best results are obtained, however, by the use of iron, tonics, and the fluid extract of cimicifuga.

Several cases of interest have transpired lately in the surgical wards of the hospital, which are under the charge of Prof. Hayes Agnew, and Dr. Chas. Hunter.

HERNIA.

Dr. Chas. Hunter has performed Dr. Dowel's operation for hernia in three cases—twice with positive success. The third case failed through the intervention of a visitor who displaced one of the pins, so that it could not be returned. The operation, first suggested by Dr. Dowel, of Texas, is well known to the profession.

CURVATURE OF SPINE.

Dr. Henry Wharton, one of the resident physicians, has made a very valuable suggestion in connection with the treatment of this disease. In the suspension of a child for curvature of the spine, instead of using the head sling, a cord is attached to the centre of the crosses over the top of the head of Barton's bandage. This simplifies the apparatus, and is less terrifying to the child.

ULCERS.

Dr. Hunter some time ago introduced the use of oxide of zinc as a protective in ulcers. This compound is smeared around the edges of an ulcer before applying the adhesive strips, and so prevents excoriation of the skin. The oxide of zinc is used entirely at the Pennsylvania and University Hospitals.

FRACTURE OF THE PATELLA.

Fractured patellæ are treated altogether here by Dr. Agnew's splint. This consists of a flat posterior splint, with an eminence for the popliteal space, and with four rollers screwing in at the sides, two above and two below. Adhesive strips coming down on each side from above the broken bone are fastened to the lower rollers and screwed tight, and corresponding strips from below are secured in like manner to the two upper rollers. The fragments are thus securely brought together. The whole leg is then bandaged. This mode of treatment has given most excellent results.

Dr. Chas. Hunter has lately invented a more simple apparatus for the treatment of these fractures, and has used it in one case very successfully. Extension is made by adhesive strips on each side of the leg, adherent from the groin to just above the seat of fracture. A weight is attached to the free ends of these strips, at the bottom of the bed. The whole leg is then tightly bandaged with figure-of-eight turns round the knee. This method will at once adapt itself to the necessities of country practitioners, by reason of its great simplicity.

Progress of Medical Science.

On the Treatment of Chorea.—Dr. Howship Dickinson maintains that chorea is primarily a nervous and not a vascular disease; that it has its rise in the nervous centres, where the first visible, though not necessarily the first actual change is vascular distention, closely followed by extravasation and the several tissue changes which congestion and extravasation produce. He believes that the special treatment of the disease must be neurotic, although general treatment is often more valuable than special. In severe and acute cases, where there is danger of exhaustion from loss of sleep and incessant movement, he advises liberal feeding, stimulants, and the bromides, opium or chloral, to produce sleep. The movements, if violent, must be restrained to prevent exhaustion, and also the excoriations and sores they sometimes produce. Anything which causes alarm or distress must be avoided. The bowels are to be kept open by an occasional purge. With regard to the special treatment, antimony controls the jactitation more quickly than any other drug, but it must be given in large doses to be effective, and so used it adds to the prostration. Zinc stands next in order of efficiency. It must be given in large doses to begin with; a grain of the sulphate should be given three times a day, or oftener in severe cases, and a grain added to each dose every day, till the dose amounts to from fourfeen to twenty-six grains. When given in this way it does not cause sickness, but simply lessens the jactitation. In one case Mr. Dickinson gave forty-five grains three times a day. The zinc passes off by the bowels, and can be recovered from the fæces, but no trace of it can be detected in the urine. It seems to be followed by anæmia in some cases, and hence it is often advisable to combine it with the sulphate of iron. When the chorea subsides, the zinc should be gradually withdrawn, and the iron continued alone or with quinine. In the slighter and more chronic forms of chorea, the remedies that have proved most beneficial are iron, strychnia, and arsenic; the iron may be combined with one of the others. The iron and strychnia may well be given in the form of bromide. Where chorea is mixed with hysteria, as in young girls, electricity and shower-baths are useful, but they would do harm in simple chorea. Calisthenics and dancing seem sometimes to do good. General tonics and change of air are useful in the smaller shapes and the lingering remains of chorea.—*The Lancet*, January 6, 1877.

Cerebral Localizations.—M. Charcot terminated his course of clinical lectures on the diseases of the nervous system, at the *Salpêtrière*, with an account of cerebral localizations, the object at present of his special investigations. He thinks that accurate clinical observations will prove to be of much greater value than experimental investigations in dispelling the obscurity that still envelops, to a great extent, the

physiology and pathology of the brain. While admitting the value of experimentation, he points to the fact that removal or destruction of recognized motor centres in the brains of animals is followed by but slight and transitory paralytic phenomena. The brains of dogs, rabbits, and guinea-pigs, like those of infants under two months of age, seem to have little connection with the peripheral nervous system.

With regard to the localizations in the cortex, the motor zone is known to comprise essentially the ascending frontal and ascending parietal convolutions, which are separated from one another by the fissure of Rolando. A sufficiently extensive lesion of the upper two-thirds of one or both of these convolutions causes a hemiplegia of the opposite side, which is distinguished from a central hemiplegia by the absence of anæsthesia. When it is attended by facial paralysis the lesion has surpassed the above limits, and when attended by aphasia it has extended to the third frontal convolution of the left hemisphere. Ferrier's observations indicate that this region may be subdivided into different excito-motor territories corresponding to the movements of the arm, the leg, the face, etc. The localization of some of these territories has already been settled by clinical observations.

Another set of lesions, instead of destroying the nervous elements, produce irritation of the cortical substance. This irritation is revealed by convulsions—at first partial, limited, for instance, to a single limb, but tending subsequently to become general. Syphilis is unquestionably the most frequent cause of these phenomena of incomplete epilepsy; when the existence of this specific cause is discovered, an energetic course of treatment must be promptly adopted, because, if left to itself or insufficiently treated, the cerebral lesion will lead to destruction of the nervous substance. M. Charcot prescribes mercurial frictions over a large surface, so as rapidly to produce salivation, and at the same time gives iodide of potassium in as large doses as can be borne. At the end of eight days the treatment is stopped; but if the epileptiform phenomena are not sufficiently modified, it is resumed after an interval of a few days. In this way M. Charcot has cured several cases.

A lesion of the conducting fibres that unite the motor cortical region with the spinal cord of course produces the same phenomena as a lesion of the cortex itself. *Intra vitam*, it may be impossible to differentiate the two. A lesion of the cortex may be attended secondarily by descending degenerations that can be traced into the peduncle, the medulla, and even into the spinal cord itself. The localizations in the centre of the brain may be deduced from those of the cortex; the symptoms will depend upon the bands of conducting fibres that are involved. Observation has shown that the lesion which causes a permanent hemiplegia with secondary degeneration is located in the anterior two-thirds of the capsula interna, the fibres of which unite the motor cortical zone with the peduncles; and on the other hand, that the lesion which causes hemianæsthesia is located in the posterior third of the same capsula interna. The fibres of this part are directed towards a part of the cortex which seems to belong to the occipital lobe; this is the sensitive zone, but it is still little known. Cerebral hemianæsthesia is sometimes accompanied by hemichorea. The frequent coincidence of the two affections shows that they depend upon lesions of neighboring parts; it is, in fact, very probable that hemichorea is due to a lesion of the posterior fibres of the capsula interna. We do not yet know to what part of the cortex these fibres correspond. Cerebral hemianæsthesia does not differ in any respect from hysterical hemianæsthesia; hence, it is allowable to hold that the still unknown lesion of the latter is also located in the sensitive cortical zone. Hemichorea most frequently follows an attack of apoplexy; sometimes it precedes an attack, and in rare cases is developed slowly and independently. It may occur, with or without hemianæsthesia, in children as well as in adults. In two of M. Charcot's cases the instability of the movements was developed during childhood.—*Gazette Médicale de Paris*, Jan. 6, 1877.

Structure of the Cell-Nucleus.—The last number of the *Archiv für Mikroskopische Anatomie* contains a paper by Fleming, in which he maintains that the reticular arrangement observed in the cell-nucleus is a vital appearance, and not a post-mortem change. Prof. Langhans, of Berne, however, has demonstrated that this reticulation is a post-mortem process in at least one variety of cells. When the cells of a fresh decidua serotina (human) are examined in the warm blood serum of a recently killed animal, the nuclei are seen to be sharply defined against the protoplasm, shining and perfectly homogeneous, no traces of nucleoli or granules being discoverable. After a varying period of time—or immediately, if water or some other reagent be added—the entire mass of a nucleus divides into two substances, one of which refracts light strongly, and the other only slightly; the former is arranged in the form of a network, and the latter is collected in the interspaces. The septa of the network are very delicate, and at first of equal thickness throughout the entire nucleus; externally, they are continuous with the thin boundary layer of the nucleus—"the nuclear membrane"—which consists of the same strongly-refracting substance. This change does not cause any alteration in the size of the nucleus. In the protoplasm the reticular appearance lasts for hours, and may even often be discovered in hardened preparations, but in the nucleus the picture rapidly changes. The vacuoles or interspaces become larger, the septa become thinner, and finally rupture, and the substance of which the septa and their nodular points is composed flows together, so that finally the strongly refracting substance is collected into one, two, or three brilliant, more or less centrally located nodules (nucleoli), while the remaining mass of the nucleus is composed of the clear substance of low refracting power. The latter may be clouded in consequence of the action of reagents, or of decomposition, and may contain a granular precipitate. The entire process consumes only a few minutes, and in consequence of the great difference in the refracting power of the two substances, it is easily watched in first specimens. Both substances are fluids. For some unknown reasons, the reticulum sometimes remains unchanged for a long time; in other cases the vacuoles near the periphery enlarge and communicate, while the central part of the reticulum persists as long as the observation is continued. No nucleoli are then produced.

Hence, we have to deal here with a post-mortem change, a separation of the originally homogeneous nucleus into the "nuclear fluid," and the proper "nuclear substance," *i. e.*, nuclear membrane and nucleoli. In spite of numerous investigations, Prof. Langhans was never able to demonstrate a similar change in the cells of other tissues, even in the cells of sarcoma and cancer, which are often remarkable for the large size of their nuclei and nucleoli.—*Centralblatt für der Med. Wissenschaften*, December 9, 1876.

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AN ABUSE OF MEDICAL CHARITY.

We have from time to time said a good deal concerning the abuse of medical charity, but it seems that the evil is not yet. Notwithstanding the many lights in which the subject has been viewed, new texts are constantly presenting themselves. If it were not that we still believe that physicians should have an opportunity of making a decent and honorable living, we would not care to preach any longer on this subject. The best the task is discouraging, and particularly so in view of the readiness with which medical men themselves countenance the many measures which tend to cheapen their services to the community. At the recent dinner of the Alumni Association of the University, one of the Commissioners of Charities and Correction, in speaking of the difficulties attending the administration of his department, took occasion to say that the only class in the community who cared to give their services for nothing, who delighted to do so—in fact, who begged for the opportunity, were the members of the medical profession. He could hardly understand why men whose incomes ranged all the way from $5,000 to $60,000 a year, were so willing to give so much of their valuable time for nothing. Of course, he could not understand that clinical advantages to the physician must be had at all hazards, and that a compliment to their charitable feelings as the only incentive to their efforts was almost a joke. It is legitimate enough to attend hospitals without fee. The theory is, that by so doing we are not only helping the poor, but helping ourselves. Experience is the life of our valuable stocks in trade, and the more we can add to it, the better. We do not really cheapen our services by these means, because

The poor they cannot pay,

so no one is hurt. But the trouble is that we either do not or do not limit such services to the poor, and then the difficulty begins. This is the first step in the abuse of medical charity, of which we as a profession have taken so many, and for which we are now beginning to suffer. Our dispensaries are crowded with patients who can afford to pay, while young physicians are starving for the very crumbs of patronage. We admit that this is an old story, but it is a very true one. In spite of the code which forbids the giving away of services to any but the really needy, we are transgressing the law every day. Our eagerness to obtain clinical experience blinds us to the fact that we are carelessly throwing away pearls before swine, who will at no distant day prove the truth of the Scriptural saying.

We ask if the time has not come to consider where and when we shall stop this business. If it is a question of pure conscience with the profession in regard to the suffering poor, is it not sufficiently answered by the fact that in our dispensaries alone over three hundred thousand paupers are treated gratuitously by us every year. It is fair to assume that the number of poor treated privately equal as many more. Side by side with this, is it not relevant to consider that there is not one young physician in ten who can make a decent living? We take it that with any other class of benevolent citizens such would be considered a sufficient sacrifice to the highest Christian motives. If we view the matter in the light of a *quid pro quo* in the shape of clinical experiences, is it not time to check such mistaken professional enthusiasm?

Instead, however, of attempting to do so, we are ready to go from bad to worse, and barter our professional birthright for the smallest possible equivalent. The recent scheme of the outdoor department of the New York Hospital may serve us as an apt illustration of this point. There is in it an element of bargain and sale of the profession, which, as far as one corporation can go, fixes a very low market value for the "best attainable medical and surgical service."

We are informed that the purpose of this branch of the hospital is to give to persons of moderate means or no means at all the best attainable surgical and medical service. The charges to all who are able to pay will be as follows: First consultation, $1, for which a ticket will be issued good for one month; for each prescription furnished, 10 cents; beds in the wards with board, $1 a day; separate rooms with attendance, as may be agreed upon, varying from $15 to $50 a week.

As far as services to the really poor are concerned, this is well enough; indeed, there is no objection to the payment of a small fee by those who can afford to do no more; but where is the line to be drawn that defines the position of such as are of so-called moderate means? Certainly, any one who can pay fifty dollars a week for a room can afford to give something more than a dollar a month for medical services. As nothing is said about properly remunerating the physicians in attendance, the public have a right to assume

that the dollar per month is considered a fair professional fee for such services. We have no doubt that an institution offering such splendid inducements will be well patronized. And why not? Certainly no person who can secure medical attendance at so cheap a rate, and with such additional advantages as a large and wealthy hospital can afford, will care to patronize the struggling practitioner around the corner. It is a medical provident system, with its worst and most unjust features brought out in promising and enticing relief. Whether, however, it will work to the entire satisfaction of even the parties more directly concerned, remains to be seen. In the meantime let the young practitioner who may wish to earn small fees still continue to labor and to wait, curtail his expenses, and try to compete with this well-appointed wholesale house.

SANITARY INSPECTION FOR SCHOOLS.

The State Senate Committee to whom Senator Gerard's bill for medical inspection of schools was referred, have reported the same with amendments. The latter are to the effect that instead of one Sanitary Superintendent for all the Schools, the duties of such office should be distributed to eight assistant sanitary superintendents, who shall be appointed for such purpose. This will make one inspector for each school district. These are to report monthly to the Board of Health, and copies are to be sent to the Board of Education.

The propositions are to some extent an improvement on those of the original bill, in so far as the distribution of labor is concerned; but beyond this we cannot see that much will be gained. It is well known that the Board of Education is adverse to inspection when there is a liability of its being performed by other than its own appointees. Presuming upon its prerogative, there is not much likelihood that mere recommendations as such will receive a great deal of attention. As the case now stands, all the reports from the Board of Inspectors, through the Health Board, are liable to be pigeon-holed. The supreme authority to enforce health regulations in our schools should belong to the Health Board, and not by any means rest with the school authorities. It is quite necessary that there should be no misunderstanding regarding the real responsibilities in this matter. If there is, we shall be no better off than before. While we perfectly agree that eight inspectors can do a great deal of good work, we are also certain that, to systematize the same and make it really effective, some one of the number should be in the relation of sanitary superintendent to the rest. Thinking this point is worthy of the consideration of our legislators, we offer it accordingly.

SULPHO-CARBOLATE OF SODA IN SCARLET FEVER.—A subscriber asks for some information concerning the value of sulpho-carbolate of soda in scarlet fever.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY

Stated Meeting, March 14, 1877.

DR. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

SPONTANEOUS EXPULSION OF A LARGE INTRA-UTERINE FIBROUS TUMOR.

DR. R. OSGOOD MASON presented a tumor of uterus which had been spontaneously expelled by patient, with the following history:—

The patient, Miss B., æt. 43 years, American birth, and a teacher by occupation, was a tall, w formed woman, naturally of good health and gr energy. For twelve years she has had profuse menstr tion, and latterly she would have scarcely a week i month without flow, and most of the time it was cessive. Abdominal enlargement did not attract attention until six years ago, since which time it came conspicuous, and for the last three years she disliked to be seen in the street, her appearance be that of a woman well-advanced in pregnancy. chief symptoms were nausea, sleeplessness, hemorrha and increase in size. She also had more or less pa anæmia was excessive, and her bowels never mo without injection.

She had never been examined until three mon ago, when she was told that she might possibly h a small tumor, but that her abdominal enlargem was mostly the result of an enormously enlarged li extending downwards.

Subsequently, in consultation with an emi gynæcologist of this city, she learned the true na of her disease, but received little encouragement garding ever being rid of it, the attending physic being advised that all he could do was to con hemorrhage.

She came under my observation February 6th, ab five weeks ago, when I obtained the above history, also learned that she had been taking pretty la doses of ergot for two or three weeks without apparent benefit, and that now it had become so gusting to her that she was unable to retain it.

Her appearance was most wretched, and her c dition on account of hemorrhage was such that refused an examination, saying she would send for soon.

A few days later, February 13th, I saw her at home, when she showed me some membranous sh which she said she had been passing for two or th days, and also some distinct fragments of a fibr tumor.

An examination now revealed a condition of thi very similar to that of commencing labor. An larged uterus extended above the umbilicus, the n of the womb was low down and soft, and the os lated so that the finger passed through without d culty; but within the uterus, instead of a fœtal h it encountered fragments of the tumor, easily m ble, but for the most part strongly attached to main mass. Some small pieces, however, became tached, and came away in my hand.

The patient was informed of the state of affairs, encouraged to hope she would be rid of her tumo a week or two without any serious operation. She also told that it could be removed at any tim operation, if it became necessary.

After this fragments of considerable size were d torn off, mostly by twisting them around and aro

ith the finger, and removed. Forceps were of little e; one blade of a pair of placenta forceps passed to the uterus, and used after the manner of a curette, ndered the most assistance. After each operation e uterus was washed out with a weak lotion of ibarraque's solution.

On the eighth and ninth days from my first visit ro large pieces, constituting the main bulk of the mor, were removed, and on the 5th of March, venty days from my first examination, the last frag- ent came away.

During all this time there had been no uterine con- ıctions of any account, but only occasional spells of vere backache.

The hemorrhage ceased as soon as enough of the mor had come away, so that the uterus began to be luced in size about the fourth day of my visits.

The patient had no distinct chill, but a *chilliness*, llowed by moderate fever and sweating, on the ening before the first large portion came away.

The temperature never went above 101 degrees, and e pulse never above 112.

Within twenty-four hours after these large frag- ents were removed both pulse and temperature came normal, the appetite became good, and sleep freshing; general improvement immediately took ıce, and continued even while the last portions of e tumor were being discharged.

An inoffensive purulent discharge continued for some ys longer.

Yesterday, March 14th, I found the patient looking tter than before her illness. She had been sitting as usual for the three previous days, was employed sewing, and was looking forward to resuming her ıal occupation in a few days. The uterus at this ıe measured a trifle over three inches. The weight that portion of the tumor which was preserved and ıstitutes the specimen here presented is fourteen ıces, and I should judge that at least one-fourth of whole was lost.

Dr. Mary P. Jacobi referred to a somewhat similar e, the specimen from which had been sent to her m Boston. Portions of the growth had been cessively removed during a period of four months, patient ultimately dying of myosarcoma.

Dr. Janeway saw a patient some years ago with a ılar tumor as the result of hemorrhage, due to eration of the pedicle during the time it was being charged.

Dr. M. P. Jacobi presented a specimen for a candi- e, accompanied with a written history.

ASE OF ULCERATIVE ENDOCARDITIS POSSIBLY OCCA- SIONED BY MIASMATIC POISONING.

Dr. Beverley Robinson presented a case of ulcera- e endocarditis with the following history:

. D., aged fifty years, was admitted to the peniten- y hospital on Blackwell's Island, March 5, 1877. 'atient has suffered from intermittent attacks of lls and fever during the past week, and also from derate and persistent pain in the left side of the st, irradiating towards the left shoulder. Yester- , March 4th, he had another severe chill. This followed by fever, abundant perspiration, and sequently he felt much better. To-day, March 5th, ut mid-day, patient again complains of chilliness, ugh his skin is hot to the touch, and the ther- neter marks 106° Fah. in his axilla.

pon examination of the cutaneous surface and of eyes a slight yellow tinge is noted. Liver some- ıt sensitive to percussion, but its area of dulness is augmented. Dulness in region of spleen has somewhat increased. Pulse is tolerably full, strong, and frequent. The number of beats was not recorded. About every ten to twenty pulsations there was a short intermittence. The heart was found to be hypertrophied, and a loud, systolic, blowing murmur was heard, with its maximum of intensity at the apex, and conveyed into the sub-axillary region on the left side. The patient has had occasional attacks of cough; the respirations were rapid, and physical examination of the lungs revealed the signs of emphysema and generalized bronchitis. At 5 P.M. patient commenced to have hiccough, which continued until 4 A.M. on March 6th. At 6.30 A.M. of this day patient was quiet, complained but little, and ate a small meal. At 9 A.M. he was in a state of stupor, the pupils were contracted equally, and the pulse was very feeble. Upon the administration of stimulants (whiskey by the mouth and ether by hypodermic injection) patient recovered himself sufficiently to answer a few questions intelligibly. There were at that time no signs of localized or general paralysis. In a brief period of time patient again relapsed in a state of stupor, and finally became wholly comatose, and remained in this condition until death, which occurred at 1.30 A.M. on March 7th. During the last few hours of life the urine was drawn off with a catheter. It contained a small quantity of albumen, with casts of undetermined nature. Temperature shortly before death was 104.5 Fah., in the axilla.

Autopsy was made by Dr. E. A. Maxwell, one of the curators of Charity Hospital, twenty-eight hours after death. *Body* large and well developed; marks of nine cups over left side of chest. There is a small bruise on inner side of left patella. Rigor mortis well marked. *Head:* Bones, sinuses, and dura mater normal; vessels at base normal. Pia mater and brain substance moderately congested. *Thorax:* heart weight twenty-four ounces; pericardium normal. By hydrostatic test, large aortic regurgitation; mitral valves sufficient; right ventricular walls twice their normal thickness, firm; cavity small; right auricle dilated; left ventricular walls markedly hypertrophied; cavity slightly increased; left auricle slightly hypertrophied; cavity normal. Valves: *aortic;* posterior and right leaflets are partially destroyed, the loss of substance extending in a semicircular direction from the corpus Aurantii of right leaflet to the same point posteriorly, the greatest loss of substance being at the point of attachment of these two leaflets. Attached to the right leaflet is a shred one inch and a half long, a portion of the free border of the valves. The base presents a ragged appearance, is roughened by calcareous spiculæ, and has attached to this surface crumbling masses of fibrin. The remaining portion of the leaflet (posteriorly) shows a calcareous plate in its centre, the free end of which projects into the ulcerated border. *Mitral:* slight amount of thickening of free borders. *Aorta:* shows chronic endarteritis. *Lungs:* no adhesions, markedly emphysematous, congested and œdematous, evidences of bronchitis. *Abdomen:* liver normal; spleen enlarged; parenchyma diffluent and contains a small, wedge-shaped infarction. *Kidneys:* each contains numerous hemorrhagic infarctions of varying size from a mere point to one-quarter of an inch at base, mainly throughout the cortical portion; a few extending from the pyramids mainly in the yellow stage. *Pelves:* dilated, moderate amount of pyelitis. *Bladder:* normal. *Stomach:* shows post-mortem digestion and contains some bloody fluid. *Intestines:* small, and contain throughout numerous small, hemorrhagic infarcti.

Remarks.—Since Senhouse Kirkes first brought to

the attention of the profession a peculiar form of diseased endocardium, characterized especially by an ulcerative process affecting the valves, observers in cardiac affections have viewed this malady with much interest. And this feeling is readily explained in part by the relative infrequency of this kind of heart lesion, in part by the obscurity relating to the primary or specific cause which presides at its formation. For these two reasons, also, the correct diagnosis prior to death has not usually been made, and the revelations in the post-mortem room have been a surprise. No doubt Virchow, in his *Cellular Pathology*, unravelled many intricate points in ulcerative disease of the endocardium, which to the time of his researches in this direction had been imperfectly investigated, and later writers have cleared up certain additional questions of nature and etiology. Still, however, the *fons et origo* of the disease is debatable. Is it a disease of inflammatory type, as the name ordinarily given to it would seem to imply? Is it a local manifestation of a systemic blood dyscrasia of acute infectious nature, as the general phenomena afford strong testimony? Against the former belief the condition of adynamia rapidly produced, and irrespective of pre-existing symptoms of such morbid development, together with the wholly negative signs made known by autopsies, militate forcibly. In favor of the second view we have the analogies which have been noted, viz.: the insidious commencement, the repeated attacks of chilliness, the sudden prostration of the forces, the extreme gravity of its course, the transport of septic material in many organs, the local and general phenomena resulting from this migration, the almost certain and very speedy fatal termination.

The puerperal state appears conducive to this disease, and after a like manner, perhaps, pyæmic poisoning and certain badly defined septic influences. I cannot accept any relationship between rheumatic arthritis and ulcerative endocarditis, even though this opinion has been advocated by high authorities. The great similarity of the local changes in this disease to those which take place in diphtheria has originated the term which is now in common use with many German physicians, of "diphtheritic endocarditis." And further Lancereaux has endeavored to trace this affection, in one of its varieties at least, to the poison of miasmatic fever. To this class the case I here report may possibly be attached, if the fact that the ulcerative process was *exclusively* limited to the aortic valves be considered of significance.*

Dr. M. P. Jacobi asked if there was any of this so-called ulcerative endocarditis associated with the presence of micrococci.

Dr. Robinson did not believe that micrococci had any more significance in causing this condition of things, than in many other pathological conditions with which they were found to be associated.

Dr. Janeway thought that the lesions of the valve were of ancient origin, as shown by the presence of calcification, and that the ulcerative process was the result of it, following a recent localized inflammation.

Dr. Heitzmann concurred in this view.

Dr. M. P. Jacobi asked if the brain had been examined, and if so, whether any emboli were discovered in that organ.

Dr. Robinson stated that the brain had been examined, but that nothing abnormal had been discovered.

Dr. Janeway referred to the possibility of findi microscopic emboli in such a case, a condition fou ed upon the observations of Bastian.

Dr. Robinson wished to ask what influence n laria had in causing disease of the heart.

Dr. Janeway did not believe that there was a such influence. He thought that the exacerbatic in Dr. Robinson's case could be explained by the currence of embolic deposits in different parts of t circulation.

RARE FORM OF FRACTURE OF LOWER PORTION OF LE

Dr. Erskine Mason presented a rare form of fr ture of the tibia removed by amputation from a you man, 21 years of age, who entered Roosevelt Hospi on June 1, 1876. The history the patient gave of hi self was, that six weeks before admission he h been thrown from his wagon, falling upon a pile stones and sustaining a fracture of both bones of t leg. The limb was put up in splints by some prac tioner, who bandaged it so tightly that a slou formed on the inside of the foot, below the malleol and general mortification of the leg was threaten When admitted, the foot was in a state of extre tension, and, together with the leg, was very mu swollen. A probe passed through the opening the inside of foot detected dead bone. Several sinu formed subsequently upon the dorsum of the foot a the lower portion of the leg, and dead bone was a detected in the region of the os calcis.

On Jan. 10th, Dr. Sands, who was then on duty, h the patient etherized, in order to excise the dead bo and if possible place the limb in a more favoral position. At the consultation held on the case th was a difference of opinion as to the precise nature the injury, some believing it to be a fracture of lower portion of the tibia, displaced forwards, a others an anterior dislocation of the astragalus.

The patient did remarkably well for three we after the operation, when more sinuses appeared on dorsum of the foot leading to bare bone. This con tion was attended with extreme pain, and a gene breaking down of strength. Finally the limb v removed by Dr. Mason, Feb. 24th.

The specimen showed a fracture of the fibula j above the malleoli, union having taken place in a v faulty position. The line of fracture of the tibia v an inch and a half above the ankle-joint, extendi through the articular surfaces. The lower fragm of the tibia had become displaced forwards, formi a marked and curious projection, and had united that position with the anterior portion of the lo end of the upper fragment. The astragulus was p tially thrown from its bed. The lower fragment the tibia first became the seat of necrosis, and t disease extended itself so as to involve nearly all the tarsal bones.

Dr. Mason remarked that he had met with t similar cases of fracture, but in both instances t were recognized, and were placed in position once.

Dr. Heitzmann being called upon, made a rep to the effect that the tumor of the thyroid gland, p sented at a previous meeting by Dr. Ripley, was t seat of medullary cancer.

(To be continued.)

Metric System.—The Union Medical Association North-Eastern Ohio, at the recent quarterly meeti recommended to its members the adoption of t metric system in writing prescriptions.

* In the *Archives Gén. de Méd.*, p. 673, 1873, Lancereaux writes as follows: "There exists by the side of puerperal endocarditis, a form of ulcerative and vegetative endocarditis preferably localized upon the semi-lunar valves of the aorta, common amongst individuals affected with intermittent fever."

Correspondence.

HE SAFETY OF THE NASO-PHARYNGEAL DOUCHE.

To the Editor of The Medical Record.

AR SIR:—An article in No. 333 of your valuable rnal, entitled "The Danger Attending the Introction of Fluids into the Nasal Passages," by Dr. bert H. Buck, would, I fear, if unanswered, prevent ny a surgeon and physician from using a most luable and (with care) *safe remedy*, for one of the st troublesome and obstinate diseases of this climate, ., naso-pharyngeal catarrh.

Dr. Buck in his paper relates ten (10) cases of inflamtion of the middle ear caused by the introduction of ids into the nasal passages. As a proof that such s the fact the doctor mentions that pain was felt in ear or ears, on an effort being made to "*blow the e*" shortly after the introduction of the fluid. In efully looking over these cases, I see no evidence, cept in cases 3 (where *cold* salt and water was snuffup into the nose) and 5, that the use of the fluids l accompanying inflammations of the ear were anyng more than coincidents. Every physician who paid any attention to the study of diseases of the is well aware that one of the earliest symptoms of te catarrh and purulent inflammation of the midear perceived by the patient is pain when he "*blows nose*," and also that naso-pharyngeal catarrh is one its most frequent causes.

During the past eleven years' experience in treating o-pharyngeal catarrh, I have been in the habit, preus to applying medicated vapors, atomized fluids, more direct applications to inflamed or ulcerated nts, of washing out the nares and pharynx by ns of the nasal douche, posterior nares syringe, having the patient snuff up a warm solution of , chlorate of potash, or some fluid to cleanse the ts. And in no instance have I seen purulent inmation of the middle ear caused thereby. On contrary, I think I have seen cases of purulent inmation of the middle ear and perforation of the mbrana tympani that might have been prevented ld this method have been adopted, as the following es will tend to show:

n 1872 I was called to see a little girl about five rs of age, suffering from naso-pharyngeal catarrh, t caused a constant and annoying cough, especially night. Internal remedies failing to relieve it, I quently washed out the pharynx and nose with a m solution of salt and water, and soon taught the d to use the nasal douche herself, *i.e.*, with the stance of her mother or nurse. The douche invarily gave her relief. This little patient has continued use the douche (whenever suffering from a fresh ck of catarrh) ever since, and always finds immete relief, and has never had any trouble with her . A sister had a slight catarrhal trouble, so slight, eed, that my attention was first called to it by extension into the middle ear and perforation of drum. Two younger sisters while infants both ered from nasal catarrh, but owing to their age restlessness I was unable to use the nasal douche ringe. Yet in both the inflammation extended the middle ear, and the drums were perforated, in the case of one I was obliged to make an inon over the mastoid portion of the temporal bone to liberate pus. Had I been able to have kept the nasal passages clear by warm salt and water or other means, I think their chances of suffering from purulent inflammation of the middle ear would have been very much less. To show my belief in the efficacy of the nasal douche I shall mention only one other case, and that of my only son, thirteen years of age, who one year ago suffered from a naso-pharyngeal catarrh that affected the Eustachian tubes, causing deafness, destroying the sense of smell, and altering the voice. Repeated applications of warm salt and water by means of nasal douche and Politzer's bag used soon after gave almost entire relief. The relief was so great and well remembered that now, whenever he has a cold in his head, he invariably desires to use the douche.

The object of this letter is not only to place on record an objection to the prevailing tendency to condemn a useful method of treatment, but to invite further investigation of its real merits.

Yours respectfully,

HOWARD PINKNEY, M.D.

24 E. Forty-first St., N. Y.

"PHOSPHORUS ASSIMILATION.

THE ELEMENT AND ITS COMPOUNDS CONSIDERED AS TO AVAILABILITY."

To the Editor of The Medical Record.

SIR:—In your issue of January 27th, an article appeared with the above caption, written by Dr. R. W. Gardner, of Jersey City.

I cannot agree with Dr. Gardner in many of his assertions, or in the conclusion he has drawn from them. His first sentence may be deemed almost an axiom: "When phosphorus is administered in a free state its irritant action forms the greatest objection to its use;"—but the conclusion he arrives at, that it must be given with food, "otherwise it is found to attack the mucous surfaces," is not in accordance with numerous experiments I have performed. These hæmatomatæ, or, as they are frequently called, ecchymosed spots, are not found upon the mucous membrane of the stomach from the local action of phosphorus, for the same spots are found upon the serous membranes and sometimes upon the external skin. They are produced by the general action of the phosphorus upon the system, and are not found until the patient is under the toxic influence of the drug; then they are found upon the heart, the pleura, the peritonæum, quite as often as upon the mucous surface of the stomach, and are owing to the primary action upon the kidneys causing acute Bright's disease and subsequent fatty disintegration of other structures. I have seen these spots at the very commencement of their formation in the living animal. From the poisonous action of free phosphorus upon the blood, the blood-discs break down, and in certain spots in the capillaries these broken discs adhere to the walls of the vessels and form a nucleus for the adhesion of many others; the vessels at these spots become softened, oily, disintegrated, and a larger or smaller hæmatomata is found. If this plastic exudation is examined with the microscope it is found to consist of minute oil-globules and broken blood-discs. Experimental therapeutics has revealed these actions to me in the animal while living, and they may be seen in any animal poisoned with phosphorus in all parts of the body after it is dead. I have studied the action of free phosphorus so closely that I can at will cause the death and production of

these spots on any number of animals on any given days I may wish. If Dr. Gardner will examine the Transactions of the Am. Med. Association, vol. xxiii., pp. 644 to 652, he will find many cases there recorded; also the Trans. N. Y. State Med. Society of 1876, pp. 100 to 125.

In the next paragraph Dr. Gardner has fallen into the same error with Thompson, Turner, Squibb, and a host of other writers. "It has such a powerful affinity for oxygen," "this explains its corrosive action on the stomach."

As soon as phosphorus unites with oxygen it loses its poisonous properties, even if this union is its lowest oxide. Phosphorus is nearly always administered in some oleaginous material for the purpose of preventing its oxidation, and it does prevent it most effectually, and we find the effect of the free uncombined phosphorus in the derangement of the digestive organs, and have proof of its presence in its unity by the phosphorus eructations, and when an animal dies from its action by the phosphorus smell of the whole body. According to Thompson's theory, $\frac{1}{20}$ of a grain of phosphorus dissolved in oil and given diluted with some other substance, instead of spreading over the surface of the stomach and becoming absorbed, falls upon one little spot of the stomach and an immediate conflagration takes place, by its union with oxygen, and burns up the membrane.

Again, Dr. Gardner says: "Phosphorus cannot be absorbed in its pure state; a certain degree of oxidation must have taken place before it reaches a condition adapted for assimilation." Why can it not be absorbed? It is in a state of solution! Its congener arsenic is readily absorbed! It has many times been found after absorption in a free state. If it becomes oxidized it loses its characteristics, as sulphur does in its union with oxygen.

In the next paragraph Dr. Gardner evidently does not mean, though he infers, that the remedial action of the oxides of phosphorus are produced by taking free phosphorus and having it become oxidized in the system. This action very seldom takes place, and I am certain that one so skilful would never administer free phosphorus when he wished to produce the effects of the lower oxide—the hypophosphite—"in contributing to nerve power and vital force."

Free phosphorus is one of the most dangerous medicines we possess, even in the hands of one well skilled in its use, and in my opinion should never be administered to man until one has fairly and fully learned its effects and toxic influences by numerous experiments upon the lower animals.

Lehman has demonstrated that a man in good health excretes in his urine 54 grains of the phosphates daily. Dr. Gardner certainly would not expect to "contribute to nerve power and vital force" by restoring this loss in giving free phosphorus "in $\frac{1}{20}$ grain doses."

The balance of Dr. Gardner's article has been closely studied, and is worth a careful perusal, but many of the points he has given need a more lengthened explanation. Thus: "Phosphorus exists in the vegetable world in the condition of *phosphate* only." This would be better understood had he said that "by the ordinary method of analysis it is only found in vegetables in the state of a phosphate; but, by later and more improved methods of analysis, hypophosphites have been found in vegetable as well as animal tissues. I would refer to Crace Calvert's investigations, and to my "Essay on Phosphorus," Trans. Am. Med. Ass., vol. xxiii.

To Churchill is due the credit, some eighteen years ago, of introducing the hypophosphites, or the lowest oxide of phosphorus, to the attention of the professi and he has demonstrated by ample testimony th great utility in debility and consumption. To enla upon Churchill's views, I for years labored to prodi more easily assimilated hypophosphites than th made in the laboratory; and through my Essay 1872, the profession demanded from me these impro hypophosphites until I was compelled to put th into other hands. Through the recommendation the professiou only, Messrs. Caswell & Hazard from 2,000 to 3,000 bottles of "Vitalized Hypoph phites" monthly.

Dr. Gardner is correct when he says that all *phosphoid* (I coin this word) preparations in the s tem gradually become converted into its highest ox —the phosphate; in which condition it loses its uti as a nutrient, is eliminated from the system, and m again go through organization or "vitalizing" plant life before it becomes in a condition to nour and support animals.

I think Dr. Gardner is again in error when he s that the hypophosphite salts should be converted i solution and kept in the form of syrups. My exp ence has proved to me that they keep unchanged a longer time (in fact, an indefinite time) when kept the "vitalized hypophosphites" are—in the form a dry powder; even the oleaginous ones are h maintained unaltered. I have found those prepa tions *in syrup* to be constantly and increasingly form into phosphates, and some that have been kept bu very short time, and were perfectly pure hypoph phites when made, were *wholly* converted into ph phates within a month.

Dr. Gardner will excuse me if I have criticised *minor points*. I am happy to see his able paper, a I know that he will argue only for truth's sake. have studied the subject of phosphorus deeply, a feel interested in all intelligent writing upon it.

Within a short time I have presented to the pro sion, through Messrs. Caswell & Hazard, a pecu protagon or phosphoid—nitrogenous element as exists in the germinal portion of wheat, and the bra of animals and fishes. It has the following

COMPOSITION IN 100 PARTS.

The Phosphoid-Nitrogenous element, isolated, C_{42} H_{79} N_6 P_6 O_{12}.....	10 pa
" Hypophosphite of Sodium, Na_3 P O_2	2 "
" " " Calcium, Ca_3 P O_2	2 "
" " " Potassium, K_3 P O_2	2 "
" Animal and Vegetable Albumen.....	5 "
" Phos-glyceric Acid, C_3 H_9 P_2 O_2. .	5 "
Free Hypophosphorous Acid, its solvent, H_3 P O_2	5 "

Respectfully yours,

SAMUEL R. PERCY, M.D.

47 W. THIRTY-EIGHTH STREET.

ARMY NEWS.

Official List of Changes of Stations and Duties Officers of the Medical Department, United Sta Army, from March 25 to March 31, 1877.

DE GRAW, C. S., Ass't Surgeon. To report to t Commanding Officer, Dept. of the South, for assi ment to duty. S. O. 63, A. G. O., March 24, 1877.

JESSOP, S. S., Ass't Surgeon. To report to the Co manding Officer, Dept. of the South, for assignm to duty. S. O. 63, C. S., A. G. O.

MOFFATT, P., Ass't Surgeon. To report in pers at the expiration of his present leave of absence, to Commanding General, Division of the Atlantic, assignment to duty. S. O. 63, C. S., A. G. O.

WEN, C., Ass't Surgeon. Assigned to duty at Mad- Barracks (Sackett's Harbor), N. Y. S. O. 70, ision of the Atlantic, March 28, 1877.

ORTER, J. Y., Ass't Surgeon. Granted leave of nce for twenty days. S. O. 61, Dept. of the South, ch 29, 1877.

HUFELDT, R. W., Ass't Surgeon. Relieved from ; at Indianapolis, to proceed to Fort McHenry, , complete his unfinished business, and then com- with orders assigning him to duty in Dept. of the te. S. O. 68, Division of the Atlantic, March 26, 7.

ERLEY, H. O., Ass't Surgeon. Relieved from duty effersonville, Ind., and to comply with orders as- ing him to duty in the Dept. of Dakota. S. O. C. S., Division of the Atlantic.

Medical Items and News.

ONTAGIOUS DISEASES.—Comparative statement of s of Contagious Disease reported to the Sanitary eau, Health Department, for the two weeks ending ch 31, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
ch 24	0	3	67	2	16	44	1
" 31.....	1	0	99	2	18	48	2

ROVIDENT DISPENSARY SYSTEM. — At the next ting of the Public Health Association of New k, which will be held in the rooms of the Acad- of Medicine, No. 12 West Thirty-first street, on rsday evening, April 12th, at eight o'clock, Mr. es C. Bayles will present the report of the special mittee appointed to consider the practicability of oducing the *Provident Dispensary System into this* . The profession are invited to attend.

EDICAL SOCIETY OF THE COUNTY OF NEW YORK. t a stated meeting of the Medical Society of the nty of New York, held March 26th, 1877, it was ed to grant certificates of membership to the fol- ing named gentlemen: Drs. L. R. Walton, Robert tts, P. A. Callan, R. H. Saunders, W. C. W. Glazier, R. McGregor, K. Van Arsdale, M. D. Dubois, E. D. eeler, G. M. Lefferts, S. D. Terry, A. V. Brailly, D. Buck, W. J. Purcell, E. Gruening, K. Reid, L. her, J. T. Darby, E. T. Ely, M. E. Tully, C. Wil- ns, C. Dixon Varly, E. B. Bronson. David Matthews, J. Milhau, Wm. W. Jones, J. W. Warner, J. W. rth, J. F. Kennedy, R. O. Mason, L. Damainville, E. Hyde, G. M. Bull, J. M. Hills, L. H. Sayre, S. terman, H. G. Forbes, and J. J. Reid.

HE LATE DR. HERMANN ALTHOF.—The members of surgical staff of the New York Eye and Ear In- ary have heard with profound sorrow of the death their long-time associate and friend, Dr. Hermann hof, and desire to express to the family their deep pathy with them in their great loss, and show r own appreciation of the character of their de- ed friend.

n Hermann Althof we, his associates, had an enthu- tic coworker, a long-tried and able adviser, an test, conscientious executive chief, and, better than a devoted, warm-hearted friend. Few of us have not had occasion to apply to him for advice and assistance, and none has ever found him wanting. The combined beauty of his character as man, physician, and friend was but seldom met with. To a rare skill in diagnosis was united a wonderful manual dexterity, and a judgment that so seldom proved faulty, as to seem almost unerring. We may well mourn the loss of a man stricken down in the prime of life, singularly fitted for his duties, profound in his knowledge, and skilful in his art, whose wise counsel and genial nature endeared him especially to us. By this sudden blow the Infirmary has been deprived of one whose skill and learning as a surgeon, whose integrity and loyalty as a man, and whose zeal and experience in the best interests of the institution, it could ill spare. As executive surgeon we have lost one who, sound in judgment and efficient in action, was tireless in his efforts for the good of the Infirmary. His death is a real, irreparable loss. His place now empty can never be filled; but his tender, loving spirit, his earnest life will preserve his memory ever fres hand green in our hearts. His whole life furnishes a rare example for all to follow, and as the best tribute which we can pay to his worth we can but attempt to uphold by our own endeavors the lofty standard of excellence he himself professed.

(Signed) HENRY D. NOYES, RICHARD H. DERBY, CHARLES S. BULL, } *Committee.*

OUT-DOOR DEPARTMENT OF THE NEW YORK HOSPITAL.—The following gentlemen constitute the attending staff: Surgery, Drs. S. F. Morris and G. F. Blauvelt; Heart and Lung Diseases, Drs. Beverly Robinson and G. G. Wheelock; Diseases of the Head and Abdomen, Drs. T. A. McBride and A. McL. Hamilton. From 3 to 4 P.M.: Skin and Venereal Diseases, Drs. L. D. Bulkley and R. Abbe; Children, Drs. F. P. Kinnicut and H. F. Heineman; Women, Drs. G. S. Winston and F. P. Foster.

REMEDY FOR NERVOUS HEADACHE.—Dr. John E. Lockbridge, of Indianapolis (*American Practitioner*), gives a remedy for headache. He says: "Having observed that bromide of potassium, in twenty or thirty grain doses, and tincture of aconite root, separately, relieved more cases than any remedies I had previously exhibited, I experimented with large doses of the drugs combined. For several years I have been in the habit of giving in these cases sixty grains of the bromide of potassium and ten drops of the tincture of aconite root in a wineglassful of water, the same to be repeated in an hour or two if the head be not relieved; but a repetition of the dose is very seldom required. In the case of ladies and others who wish to have a remedy always at hand, or who are about to start on a journey, I supply them with the following mixture:

"℞. Bromide of potassium..... ℥ ij.
Tincture of aconite root..... ♏ i.
Distilled water, } ..... āā ℥ ij.
Simple syrup, }

"M. S.—Take a dessertspoonful in some water every hour until relieved.

My recipe may smack of empiricism in appearing as a panacea for every variety of headache, let the cause be what it may and the accompanying symptoms be what they will; but I am willing for it to rest under the soft impeachment, if indeed it relieves promptly only a moiety of these distressing cases. I will not now attempt to give the *rationale* of this seeming paradox, or the *modus operandi* of the cure, but will simply remind my readers that this nervous headache is a para-

doxical, capricious, discouraging, and worrying affection."

On a New Treatment in Post-partum Hemorrhage, by W. Handsel Griffiths, Ph.D., L.R.C.P.E. —Although not an obstetric practitioner, I have recently been consulted in two cases of severe *post-partum* hemorrhage. In both cases every means had been adopted, but unavailingly. It flashed across my mind in the first case to try the effect of the ether-spray, and accordingly I directed a large spray over the abdominal walls, along the spine, and over the genitals; the uterus at once responded, and the cessation of the hemorrhage was almost immediate. In the second case I lost no time in adopting a similar treatment, and with an equally successful result. I have consulted several eminent obstetric practitioners in Dublin, and am informed by them that they are not aware that this treatment has been heretofore proposed. The advantages of the ether-spray over the application of cold water and the other means usually adopted in these cases must be patent to every practitioner of midwifery.—*London Practitioner.*

New Medical Colleges.—It is rumored that there will be a medical college in Toledo, Ohio; of course this will soon be followed by another. One brand new medical college has just been organized in Nashville. Rumor speaks of one to be projected in New Albany. Fort Wayne has just undergone the throes of parturition; so there is an infant school there. The air is thick with rumors of other medical gentlemen being ready "to supply a want" by opening medical colleges elsewhere. It is said that if physicians would only charge each other's families for services rendered, this act would check the new college mania. At present, men find it economical to study medicine to enjoy freedom from physicians' bills. If any one desires to cease paying doctors' bills, he has only to become a doctor. The best counter-movement is for every physician to charge every physician's family for medical services given!! If this is not done, there will soon come a social condition, when, if it cannot be said that "every man's his own doctor," it can at least be declared that every man is his neighbor's doctor. Indeed, it seems that the great millennium is near at hand; all are to be doctors, and therefore all are to be good and perfect men!—*American Bi-Weekly.*

Faculty Prize Examination of College of Physicians and Surgeons, N. Y.—The following was the schedule for the Faculty Prize Examination of the class of 1877, ten of those passing the best general examination for graduation being allowed to compete:

Time allowed, three hours; 7½ to 10½ P.M. Answers to all the questions below are desired. If in any one of the seven branches all the questions are left unanswered, the paper in which such omissions occur will not be submitted to the Committee of Award. Write your name on each sheet, write answers only on one side of the sheet, and page the sheets as you go along.

Anatomy.—1. Give the origin, course, and distribution of the External Carotid Artery and its branches. 2. What muscles are supplied with nerves from the Cervical Plexus?

Physiology.—1. What is the mechanism by which the air is inspired and expired in respiration? 2. Which of the Cranial Nerves are motor, which are sensitive, and which are nerves of special sense?

Chemistry.—1. Where does Oxygen occur in nature? How is it obtained? What are its properties? What its functions? 2. Name the common impurities found in drinking water, and give their origin and influen on the health of persons using it. 3. What is a h drocarbon? 4. What is a carbohydrate? 5. Wl is a fat?

Materia Medica and Therapeutics.—1. Give a simp formula for adapting cow's milk for use as food f an infant three months old. State the means by whi the tendency of the casein of the cow's milk to coag late in large lumps can be counteracted. 2. Na the alcoholic beverages which are especially to be f bidden to persons with a gouty tendency. 3. St briefly the clinical effects which are peculiar to poisc ing by Physostigma as contrasted with poisoning Conium. Name the best pharmaceutical preparati of Conium. 4. What is Ergot? 5. What is Ela rium?

Pathology and Practical Medicine.—1. Give t different Heart-Murmurs; their situation, mechanis and significance. 2. Cirrhosis of the Liver—its lesio the secondary lesions due to it, its symptoms, and t cause of these symptoms. 3. Give the method treating and managing a case of simple acute T sillitis.

Surgery.—1. Describe the microscopic anatomy granulation tissue. 2. With what injury is Dislo tion backward of the Radius and Ulna most liable be confounded? Give the differential diagnosis. Contrast the local treatment of Abscess and Diff Suppuration, both acute. 4. What are the indi tions for the exceptionally early opening of collecti of pus?

Obstetrics and Diseases of Women and Children.— What measures should be adopted, in cases of Bre Presentation, when the breech refuses to descend, a becomes impacted in the pelvic cavity, either fr uterine inertia or disproportion between the bre and the pelvis? 2. What is the mechanism of the pulsion of the Placenta when left to Nature? 3. W constitute the inclined planes of the Pelvis, and w is their direction? 4. What is the composition of blood in Pregnancy? 5. What is the pathology Flexions of the Uterus? 6. State on what day of disease the eruption appears in Varicella—Variol —Measles—and Scarlet Fever; and on what part the body it is usually first seen.

The Anatomist.—We have received from R. rendsohn, a publisher of this city, an exceedin well-executed etching (7 × 10 inches) from the ori nal painting by Prof. Max upon the above subj The painting was exhibited at the Centennial Ex bition, and no doubt commanded considerable att tion. The engraving represents an anatomist wi drawing the cloth from a female "subject" whom is supposed to recognize as one of his relatives. T idea is an extremely sentimental one, although professor, seated beside the table in an easy if graceful position, contemplates the situation witl calmness which would probably be unbecoming any one but an anatomist. It is intended for office picture, and will doubtless serve a useful p pose as such.

Expert Testimony.—The *Lancet* very properly jects to the prevalent methods of expert testimo maintaining that when a medical man allows hims to be "retained" in a case, he subordinates science the exigencies of personal interest.

Maine Pharmacy Law.—A pharmacy law, simi in its provisions to our own, has been recently pas in Maine, receiving the signature of the Gover February 9th.

Original Communications.

ON THE UNITY OR DUALITY (?) OF SYPHILIS.

By J. L. MILTON,

SENIOR SURGEON TO ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, LONDON, ENGLAND.

Part II.

On the 6th day of December, 1874, I was requested by a physician to give an opinion on the case of Mr. ——. I found him suffering under a most copious eruption of papules, numbers of which were tubercular. His face was in such a state that he could not be induced to leave the house during daylight, and he allowed no one to see him except one or two immediate relatives and his medical attendant. In addition to this, the tubercles were spread in clusters over the upper part of the back, the shoulders, chest, arms, and forearms; some being covered with scales, others partially suppurating, and a third set surmounted with crusts. On the left side of the anterior arch of the palate was a superficial erosion covered with yellow secretion, and on the inside of the lower lip, about the centre, was a similar patch, ragged in shape and extremely painful. The patient complained much of rheumatoid pains in the chest, shooting through to the back.

According to his account, which was carefully compared with his narrative at a later visit, the suspicious connection took place early in May, but no result ensued for nearly or quite five weeks after; on this point the patient's statements were most explicit. The first thing noticed was a "tender spot" on the central line of the dorsum of the penis, just posterior to the glans, which in this patient was entirely covered by the foreskin. This gradually spread till it was as large as a sixpence. It slowly become covered with a crust, under which formed "a good deal of matter." There was no hardness whatever, either at the edges or base. On this point, also, the patient's answers were most distinct; and as he was a highly intelligent man, studious and fond of inquiring into such matters, of nature judgment, being quite thirty years old, and as he had repeatedly tried to ascertain whether there was any induration, his medical attendant having mentioned this point and confirming his statement, I think his account might be accepted. On examining the seat of this sore I found neither the least vestige of hardening, nor any marks showing such loss of tissue as we might expect to see after recent perforating soft sore. Enlargement of the glands in the left groin followed the appearance of the chancre, and could still be felt. The chancre closed in about five weeks from its being discovered, roseola showing itself about the same time; the middle of July, as nearly as the patient could estimate, and two months and a half or so later, the tubercles began to appear.

It seemed desirable to set forth these points a little in detail, so as to give the reader, at the earliest possible opportunity, the key-note to the objection now to be raised against some of the views upheld by M. Robert and others.

2. The second case selected is this: A man affected with indurated chancre gave his mistress seven or eight chancroids, that is to say, rather large, grayish sores with cut edges and inflamed areolæ, not followed by any, even the slightest, symptoms of constitutional disease. Such a case would, if complete, lend a certain amount of support to the "one-poison" doctrine, but it is not complete in some essential points. A mistress is not always immaculate, and this one might have acquired the disease in another way, though it is most probable she got it from the source M. Robert indicates; still, as this uncertainty does overhang the question, it would require further observations to determine this point alone. It does not appear, too, that the nature of the sores in the female even was tested by the lancet; they seem to have been phagedenic, and the modifying influence of this state on hard sore may almost be looked upon as proven, though their number militates against such a supposition. Lastly, there is reason to think that hard sore, under certain conditions, becomes inoculable, though the nature of the resulting lesion is obscure. For all these reasons, I think the case can scarcely be accepted as evidence.

3. In the third case a male patient, having a small chancre on the frænum, and a bubo with specific suppuration, inoculated himself from the pus of this bubo on the upper lip. The labial chancre hardened, and was followed by sub-maxillary bubo and constitutional disease. Here the same objection, that of being incomplete, attaches. A good deal of hardness may attend chancroid, especially on the lip, while the fact of constitutional disease as a result of the labial sore has no weight, seeing that the lesion on the frænum, if capable as a secondary agent of bringing about such consequences, might have done so as a primary one. Unless, therefore, the dates of the sequence of affections were given, we could glean little from such facts.

4. The fourth observation is that of a young man contracting several chancroids, with inflamed bubo, which, however, underwent resolution, from a woman laboring under infecting chancre and constitutional syphilis, and in his turn giving a healthy woman infecting sore and most severe after-disease. Unless this is an instance of true chancre, modified *in transitu*, I do not know what it was, but I do know that it does not in any way tally with my experience. During the last thirteen years, I have had, at the hospital, numerous cases of infantile syphilis, and in nearly every one I got, by dint of repeated cross-questioning, at something like a history of infection on the mother's side, counting, it is to be observed, negative evidence; in some, but fewer, a similar account from the father. In all the cases where a wife was infected by her husband through the medium of a hard sore contracted after marriage, or where there was reason to believe that the disease was conveyed by an absorbed chancrous induration, or by impregnation, there was either no evidence of her having had a sore at all, even when unimpregnated at the time of reception, or a narrative of a solitary sore, or papule, giving so little inconvenience as to awaken no suspicion; it was very rare to find that so much discomfort had been occasioned as to call for medical aid. This result exactly tallies with that of private practice; whereas in every case of chancroid contracted by a wife infected after marriage, she applied for relief on account of the primary affection; in no instance did I trace syphilis in the children and constitutional disease in the wife to chancroid on either side of the house; when these were assignable to the husband, there was always in him either hard sore or a story of one. In all the cases of soft sore contracted by the husband, and healed before marriage, no specific disease was ever conveyed to the wife, even when no treatment was adopted to avert it. In several instances of hard sore acquired by the husband before marriage, the most persevering use of specifics entirely failed to

guard the wife from infection, and in some of these cases hard sore was generated in her. Consequently, making all allowance for reversal of sexes, I feel rather sceptical about such evidence of the generation of chancroid from chancre.

M. Fournier, who has investigated this part of the subject with extraordinary care, traced seventy-two cases of infection to the person who gave it, and in every instance where he followed the course of hard sore, found it was due, in all cases at least where the person giving the disease had not had syphilis before, to a lesion of the same nature.

Some of M. Fournier's * cases are very strong. In one, a woman with hard sore gave this form of disease to three men; another woman did the same thing; in another, six men were collected together, who had very likely been infected by the same person, and they all six had hard sore.† He, however, considers‡ that a person who has had syphilis may contract an infecting sore under the guise of soft sore, and yet convey hard sore to another person. §

There is a good deal more evidence to the same effect, only some of which I can quote. Dr. Bumstead, for instance, says, ‖ that in a somewhat extended field of observation during ten years of practice he has never seen an interchange of the two species of chancre, and that he can recall fourteen cases—six of simple and eight of infecting chancre—in which the transmission of each in its kind was unquestionable. Other carefully observed cases exist, and to these I think due weight should be assigned, but at the same time I exclude all positive conclusions, such as those of M. Diday, who tells us ¶ that "infecting chancre can, in a person who has not had syphilis, only produce infecting chancre," and that "simple sore never begets anything but simple sore," and along with them a good deal of evidence from the writings of the French dualists.

5. The fifth case is that of three young men who were infected by the same woman, two of them with hard chancre followed by constitutional disease, and one with pultaceous phagedenic chancre, only yielding to a long course of iron. I confess myself at a loss to see what bearing such a case has upon the doctrine of unity; it may be taken as evidence that phagedæna can modify hard sore, but to that I consider its influence restricted.

a, *b*. I now turn to the selections from M. Robert's theorems, the first of which is that the pus of an indurated chancre is inoculable on the patient himself, and that if we fail two or three times we may on the third or fourth succeed in reproducing the characteristic pustule. Let me hope it is no offence to say that this argument may as well be given up, and that it will not hold water. There is often no pus secreted by an indurated sore up to the time of repair, the very period when soft sore ceases to be auto-inoculable, and the constant recurrence of the word "pus" is calculated to make us uncertain as to the stage at which the experiments were undertaken. Mr. Lee, indeed, has succeeded in reproducing hard sore, but only before the characteristic induration had set in,** and Mr. Gascoyen was equally successful in two or three instances; †† he, however, does not state the age of the chancres inoculated from. Mr. Lane also inoculated a patient from his (the patient's) own chancre and produced a soft sore,* but here too, unfortunately, the same obscurity prevails. I at once admit having been much less successful, every attempt to auto-inoculate in the early stage having, so far as I know, failed in my hands, whereas I never observed a failure with chancroid; moreover, I have often enough not found any pus to inoculate from at the early stage, there being nothing beyond a little serum and débris. The answer to the second theorem, that this pus sometimes entirely fails to inoculate the patient, and then generally fails to convey the infection to another person, is contained in the reply to the first, and the inference to be drawn from it is that, if it prove anything, it proves a difference between the two kinds of virus.

c. The third proposition is, that a person actually suffering under syphilis can be successfully inoculated with the pus of a hard sore, and that such inoculation sometimes runs a severe course, being followed by a very inflamed pustule and extensive ulceration. It, too, is incomplete for reasons already given, and, if complete, would, however interesting in a pathological point of view, rather tell against the one-virus doctrine.

d. The fourth statement is that an indurated chancre, becoming phagedenic, can be successfully inoculated on the patient. This is very possible, but I believe the explanation is that any simple irritant, such, for instance, as savin powder, applied to the surface of a hard sore, will make its secretion auto-inoculable,† and pressure seems to have had the same effect in a case related by Dr. Morgan. ‡

e. From the fifth theorem we learn that the pus of an infecting chancre may generate, in another person free from infection, a soft chancre without multiple bubo or constitutional syphilis. The production in public of one such soft sore tested by the lancet, and, especially if accompanied by suppurating auto-inoculable bubo, would pretty well end the question; but till that is done I do not see how any useful purpose can be served by discussing either the nature or the course of such a lesion.

Indeed, we find not only many precautions omitted, but many statements which are calculated to make us ask whether we are not being led astray by scientific investigation. M. Robert not only succeeds in inoculating from the hard sore, but he sometimes fails with chancroid, and, what is at least equally important, he finds that when the secretion from either kind of chancre does take, the sore which it sets up always follows the same course—a papule the first day, vesico-pustule the second and third, and pustule the fifth and sixth.§ He has never seen the long period of inoculation after grafting from the hard sore spoken of by Gibert, Rollet, and others, who make it amount to eighteen up to twenty-five days, and in these experiments has never produced a papule without first setting up ulceration. ‖

Supposing all this to be established, it only remains to conclude that inoculation cannot be trusted, *that it is not a faithful interpreter of Nature*. The two kinds of sore, when acquired by connection, do often, if not always, run a different course, and the long incubation of hard sore has occurred too often in my practice to leave a doubt of its reality. I have never indeed noticed the extreme intervals mentioned by some observers, as, for instance, fifty-six days by Dr. Jeffreys Marston, ¶ five weeks and six days, six weeks, two

* De la Contagion Syphilitique; 1860, p. 39. † *Ibid.*, p. 40.
‡ *Ibid.*, p. 42. § *Ibid.*, p. 52.
‖ The Pathology and Treatment of Venereal Diseases; 1861, p. 345.
¶ Exposition Critique, p. 145.
** Lectures on Syphilitic and Vaccino-Syphilitic Inoculations; 1863, p. 31.
†† Report of the Committee on the Venereal Disease; 1868, p. 366.

* *Ibid.*, p. 238.
† A Treatise on Syphilis. By Walter Coelson; 1869, p. 251.
‡ Practical Lessons on the Contagious Diseases; 1872, p. 31.
§ Op. citat., p. 41. ‖ *Ibid.*, p. 350.
¶ Report of the Committee on Venereal Diseases; p. 26.

and even three months by Mr. Langsten Parker:* but within the last two years I have in addition to those not recorded noted down four cases, one of quite four weeks, one between four and five, and two of five weeks, and I cannot understand so many persons, strangers to each other, concurring in such statements if there was no foundation for them. Irrespective of this, there is a good deal of evidence showing the long incubation of hard sore, while I have not seen or read anything proving that this holds good with respect to chancroid. Lastly, M. Fournier's account is† that we have, after inoculation from chancre, not a papule, vesico-pustule, and pustule, but simply a redness, very slight and superficial, which remains stationary for some days without its being possible to determine its character.

f, g. M. Robert's sixth theorem is that if we inoculate with the pus of a chancre a person suffering under chancroid, and succeed in setting up hardness at the spot experimented upon, other co-existing chancroids may become encircled with a passing hardness; and the seventh, that if we select a person with chancroid accompanied by suppurating bubo, and inoculate with the pus of the latter, and that of a hard sore, leaving a distance of six or eight centimetres between the punctures, the two resulting sores often take on the same form, being sometimes both soft, sometimes hard, though it may happen that they breed true. The first fact only proves antagonism, or why did not the virus which produced the chancroid produce the hardness at the outset? With regard to the second, I must leave it to the reader to say if he can draw any conclusive inference from it.

h. Next comes the statement that simultaneous inoculation, on a person free from syphilis, of simple chancre pus and hard sore secretion, generates two pustules, which almost always go through a development so identical, that it is impossible, from the mere look, to say which is which. I have already adverted to the more important part of this statement, the production of one kind of lesion from two kinds of sore; but I may be permitted to add two or three words bearing especially on the form in which M. Robert puts forth his theorem. It is very probable that two lesions beginning as pustules will run a very similar course. M. Robert is here simply accumulating evidence which shows that the pus of a hard sore may produce one without hardness. He does not recognize the fact that the typical, if not the only, lesion which results from the grafting of chancre running its natural course, is a papule, or some kindred lesion. Here too, again, it might be urged that in his hands inoculation is not a faithful interpreter of nature, for the two kinds of sore, when derived from connection, very often run such a different course that it is quite easy, from the mere look, to say which is which."

i. From the ninth selected theorem we learn that inoculation of the pus of a hard sore is not necessarily followed by constitutional disease. The vagueness of this statement is rather damaging, and two or three points which should be considered separately are run together. Inoculation of such pus may fail in producing the initial lesion, and then in producing systemic disease, but inoculation which generates the papule is almost as certainly followed by constitutional infection as any one event is by another. The degree, indeed, is perhaps not the same as in syphilis derived from connection. Many years ago, in a paper read before the Medical Society of London, and reprinted in the *Edinburgh Medical Journal*, I endeavored to show that the syphilis of accidental inoculation runs a very different course from that originated by intercourse; but some degree of after-effect, I believe, there always or almost always is.

j. Hard sore, M. Roberts tells us, is sometimes followed by suppurating, with inoculable bubo, and in one case inoculation from the latter on the thigh of a healthy person generated chancre with a hard base, followed by multiple, indolent adenitis. This is the tenth theorem selected. Although during many years I have watched for such an occurrence, I have not yet seen suppurating bubo after genuine hard sore. I had under my care a case of secondary disease where suppuration in the groin certainly accompanied a small, superficial, slightly-indurated, and solitary chancre; but it appeared to have been merely sympathetic, being very small, healing within a fortnight, and leaving no particular scar. I am therefore disqualified for giving an opinion.

k, l. The eleventh position taken up is to the effect that the pus of a soft sore, placed upon one that is hard, may exert no influence, but that in a great number of cases it inoculates and sets up suppuration, the pus of which is highly energetic. The induction of the suppurating process causes the hardness to melt without ulceration, and sometimes brings about absorption of the hardened glands, or even retards the outbreak of secondary disease. It has already been stated that such suppuration may be caused by a common irritant, and this, I presume, is the true explanation of the fact before us. The opposite experiment, M. Robert tells us, is inert, though sometimes, if a person have soft sore, inoculation from the pus of a chancre will cause the chancroid to become encircled with a hard base. We never, he contends, or scarcely ever, encounter the hard and soft sore on the same person, as we might expect to do if they were different. Such action on chancroid, supposing it to have any weight, must, I submit, mean antagonism between the two kinds of virus; and this is made more probable by our author's statement that if a grafting be practised on the base of an old chancre, the hardness, though almost gone, will return, and I believe this has never been shown in the case of chancroid. And if we ever do encounter the two forms of sore in the same individual, the usual absence of such a coincidence must count for nothing.

m. The last proposition chosen is that in some cases a hard sore, which has become phagedenic, spreads, inoculates the neighboring parts, and occasions acute suppurating bubo, just as soft sore does. The secretion from these inoculations can be successfully inoculated on the patient, and sets up pustules as acute as does the pus from chancroid. Substantially this theorem has already been discussed, it being presumed that phagedæna acts here like a common irritant.

M. Robert concludes that, if there be not actual identity between the two forms of primary sore, there is, at any rate, an incontestable bond of parentage, and that both proceed from a common source, the syphilitic virus. The latter is subject to influences which impair its powers, such, for instance, as the arrival of the primary sore at the period of decline. It may be acted on in the same way by transplantation to persons already suffering from syphilis, as also from some unknown but evident state of the system; but after languishing in this unfavorable soil it may be further transplanted, be regenerated, and recover its former power.

Constitutional disposition is with him the great cause of the differences seen in sores, absolute freedom from syphilitic taint at birth being one of the strong-

* *Ibid.*, p. 273. † Op. citat., p. 101.

est of predisposing factors, and consequently a drawback rather than an advantage. He, however, admits * that this novel view of the case is opposed to generally accepted opinion, an admission which I should say few persons will be disposed to contest. Syphilis, he holds, contracted by the parent, may protect the child, just as in after life it guarantees the individual, and he concludes by saying that infecting chancre generally springs from infecting chancre, but that in a person who has had syphilis this mode of infection brings forth soft sore as it does in some peculiarly constituted persons. Inferentially, then, his conclusions are that soft sore always springs from hard, and that the want of hardness is due to the recipient having had syphilis. This is one of the conditions necessary for the genesis of soft sore; the two others are: 1, the inoculation having been performed at the declining stage of chancre, and 2, constitutional immunity. Soft sore has a natural disposition to recover the power of infecting the constitution. Chancroid, soft sore, and hard sore are but so many manifestations of one sole virus.

Such are the arguments employed by M. Robert. I hope I have faithfully reproduced them, and know that it was my intention to do so. To me they seem, as a whole, untenable. When examined in detail, some few parts of them support the one-poison hypothesis, or, perhaps, it might better be said, are insurmountable obstacles in the way of duality; but their operation does not extend farther. They are sometimes incompatible with sound reasoning, and, I think, still oftener, with observation. The explanations of them suggested by the theory of a dual sore are an argument which I have not used, for the simple reason that I never felt quite satisfied I had such a thing as a sore of this kind before me.

Perhaps the most formidable argument, and one to which many would evidently narrow the contest, is yet to come. It has been asserted by surgeons quite able to judge, that secondary affections of the most severe type have been noticed after genuine soft sore, and these are not hasty, random statements, but the expression of careful observation. Dr. Jeffrey Marston, whose evidence was highly creditable to him, deposed to this effect before the "Committee on Venereal Diseases," † as did Mr. Longmore, ‡ Dr. John Davidson, § Dr. Thomas Nelson, who has noticed the same thing even when this form of chancre was accompanied by suppurating bubo; ‖ Mr. Samuel A. Lane, who has seen it followed by scaly and tuberculous eruptions; ¶ Mr. Busk, who observed papular, rupial and pustular eruptions after soft sore; ** and Mr. Langston Parker, who noticed constitutional affections, generally of the pustular form, after chancroid, even when it had suppurated profusely.†† Dr. Morgan, too, mentions ‡‡ the case of a young man, who had been in Mercer's Hospital from the first appearance of the disease, and who had severe symptoms from two soft sores, accompanied by suppurating bubo. He has also "frequently seen" multiple soft sore followed by constitutional signs, a piece of good fortune which has, I should say, not often fallen to the lot of mortals.

I suppose it is scarcely exaggerating to say that whole pages of similar evidence might be cited, but I believe that given is a fair specimen, and that it would be superfluous to go farther. I proceed, therefore, to deal with the foregoing extracts, and, hazardous as it may seem, to contest the inference drawn from them. I must yet contend that they do not establish the doctrine of unity. They prove, I admit, that in some rare cases hardness does not accompany solitary infecting sore, but they do not show that it is, when in this condition, identical with soft, auto-inoculable, multiple sore; yet this must be done, or logical reasoning must halt and interpose with the conclusion that the parallel lines touch here, or nearly so, in consequence of the sudden deflection of one of them, but that there is no proof of their intersecting each other. It should not be forgotten that an infecting sore may heal quickly; that hardening may come on after healing, and even after the surgeon has lost sight of the patient, and that such a train of circumstances may be followed by secondary disease. Indeed, it is a significant fact that after the surgeon's attention has been called to the point of the subsequent induration cases illustrating its occurrence turn up more frequently than was at first suspected.* We find in the Report more than once quoted from, some of the medical witnesses dwelling rather impressively on this point.† Dr. Thomas Frazer says ‡ that he believes the induration would always be found were the patient seen from the first. Lastly, in the rare cases I have myself noticed of non-indurated sore followed by secondary disease, not only did the primary lesion differ in appearance from true soft sore, but it healed much more quickly than the latter usually does, sometimes closing spontaneously in about a fortnight, a circumstance in itself calculated to make us suspicious as to its true nature. This, too, I have some reason to think was the case in some few narratives that I have read.

While I feel no hesitation in emphatically stating that I have never seen multiple auto-inoculable soft sore followed by the typical marks of secondary disease, I at once admit that I have seen a certain degree of constitutional affection from what must have been either non-indurated infecting sore healing more quickly than usual, or chancroid, though, as stated at the very outset of this paper, I believe they must be referred to the latter, for the reason that the systemic affections differ so materially from those following chancre. From first to last, I have in about twenty years collected five of these cases. In none of them did I see the primary lesion, nor was its nature tested by inoculation. I had, therefore, to trust to the patient's description, and I need scarcely say how unreliable such authority is. Still, after making due allowance for this source of uncertainty, I could come to no other opinion than that a sore of the kind just spoken of had been the starting-point. The symptoms were in every instance mild, being with slight exceptions limited to a few papulæ having a history of late and very slow evolution. In two patients there was some alopecia; in two, but not the same, certain amount of sore-throat; while one had a slight attack of iritis. Four of the patients seemed to have had no suspicion that the symptoms were due to syphilis, nor could I induce one of them (the four) to go through a proper course of treatment, while mild measures in the shape of mercury and iodide of potassium seemed thrown away. The fifth patient labored under syphilophobia, and after a flying visit or two I lost sight of him, so that I could not follow up the history of the treatment.

Perhaps, then, the question really ahead of us is not so much whether the doctrine of duality as taught by Bassereau and Rollet, and at one time so very favorably received, is to be entirely subverted by the

* "Contrairement," etc., op. citat., p. 311.
† Report, p. 31. ‡ *Ibid.*, p. 12. § *Ibid.*, p. 70.
‖ *Ibid.*, p. 108. ¶ *Ibid.*, p. 231.
** *Ibid.*, p. 259. †† *Ibid.*, pp. 269, 270. ‡‡ Op. citat., p. 45.

* Report, p. 156. † *Ibid.*, p. 181. ‡ *Ibid.*, p. 183.

theory of one virus, as whether infecting sore does not at times take on the look and even some of the characteristics of chancroid. In the *Edinburgh Medical Journal* for July, 1873, I pointed out circumstances in the history of syphilis which I then thought and still think militate against such a conclusion as that involved in the doctrine of unity, in its present shape, being accepted as a satisfactory solution of the problem; but, the tide of reaction having set in toward unity, it is doubtful whether any authority would have availed to check it, experience having shown that sometimes the only plan is to let the current exhaust itself.

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THE CARE OF THE EYES.

BEING QUESTIONS SUBMITTED TO

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BY THE NEW YORK MEDICO-LEGAL SOCIETY.*

First question.—"Whether bad air has any direct effect on the sight, or only mediate or resultant from other immediate bad effects?"

In considering this question I shall first assume that the real meaning of the question is whether bad air has a direct effect upon the organ of vision, and not simply as to its perceptive power, which the word sight taken literally would imply. I shall then consider the question as it actually reads, that is, as affecting the perceptive power.

I have no doubt in my own mind, and I believe it is universally admitted, that vitiated air has a direct, irritating effect on all mucous membranes, and I feel convinced from my own observation that the mucous membrane of the eye is peculiarly susceptible to its influence. This is shown by the fact that repeated attacks of inflammation of the mucous membrane of the eye, which have occurred in a vitiated atmosphere, and which have resisted all curative means, are often cured at once, and prevented from recurring, when a wholesome supply of air is obtained, all other conditions remaining the same.

I am therefore of the opinion, that bad air alone, acting as the primal cause, may set in train a series of morbid processes, which may, and often do affect, not only the working capacity and integrity of the organ, but which may lead even to its total destruction. Thus simple irritation of the mucous membrane of the eye may, and often does, pass into actual inflammation, which, increasing in violence, may proceed from part to part till the entire organ is involved, and thus the sight become impaired or totally lost.

That bad air, in the ordinary sense of the word, and including irritating gases, has a *direct* effect on the sight—that is, on the amount of perceptive power—I do not believe, nor do I understand this to be the question submitted to me; but that an impairment or loss of vision may be attributed to bad air as a direct result follows, I think, from what has been stated above.

Second question.—"Whether size and quality of type may cause disease of the eye?"

First, in regard to size of type. The smaller an object is, the nearer it has to be brought to the eye to be perceived.

It has been accepted by oculists that type embraced by an angle equal to 5′ (five minutes) is the smallest printed matter which can be recognized by the average normal eye. According to this formula the smallest print which a normal eye can readily recognize at a distance of one foot is about $\frac{1}{60}$ of an inch, at eighteen inches (the average distance at which the book is held by an adult), the smallest recognizable type would be about $\frac{1}{40}$ of an inch. The normal eye should never be subjected for any length of time to a type smaller than twice this size, that is, $\frac{2}{40}$ ($\frac{1}{20}$) of an inch, and it would be better after middle life to employ a type even a little larger than this. The fact, however, that spectacles are now so commonly used removes in a great degree, by restoring to the eye its former focalizing power, the necessity of a larger type with advancing years. Young children should never hold the book nearer to the eye than ten inches, and adults never farther from the eye than eighteen inches. As soon as perfectly distinct vision at this distance cannot be obtained, and if obtained, cannot be easily maintained, recourse should be had to spectacles.

The finer, then, the type, the closer the book has to be brought to the eye, and the greater the tension or demand on the focalizing power, and the muscles which are used in bringing both eyes to bear at the same time upon the object viewed. These two acts make what is called the act of accommodation of the eye, and tension of the accommodation, that is, long-continued use of the eye upon objects brought close to it, is considered by all authorities one of the most, if not *the* most, fertile causes of progressive near-sightedness.

This condition may be accompanied by morbid processes, which may involve the deeper seated membrane of the eye to such a degree as to not only affect the vision, but to even destroy it. Too fine print, therefore, may be, I think, looked upon as a factor in producing eye disease, affecting not only the external, but also the internal parts of the organ.

On the other hand, too coarse print is wearisome to the eye, as it requires more exertion of the muscles governing the movements of the eye, that is, for a given amount of matter; and especially is this the case when the breadth of the page is, as usually happens, increased so as to keep the just proportion of matter on a line. This leads me to observe that usually the breadth of the page is, if anything, too great. This causes undue exertion on the part of the muscles which move the eye in a lateral direction, and is apt to lead to confusion in finding the next succeeding line. It is for this reason that the narrow form of English blank verse is so little fatiguing to the eye.

The popular prejudice in regard to the double column on a page would be untenable were it not that the same economy which restricts the amount of space also reduces the size of the type and crowds the lines together. A double-column page which is well printed and properly divided is certainly preferable to the same amount of matter extending in a single line across the entire page.

The distance between the lines, that is, from the bottom of one line to the top of the other, should be about $\frac{1}{40}$, or one-eighth of an inch. Nearer than this is apt to be confusing; farther, fatiguing.

The distance, however, can be considerably less in a page with a double column than in one with a single.

If a double-column page is used the distance between the columns should not be less than one-quarter of an inch.

Quality of Type.—The less contrast there is between an object and its surroundings the more difficult it is to see the object, and the closer it has to be brought to the eye. A faintly-printed page has therefore to be brought nearer, oftentimes very much nearer, than a

* Read before the New York Medico-Legal Society, Feb., 1877.

well-printed page of the same type. There is nothing more wearisome to an eye than an indistinct and blurred image of a familiar object, and no more striking example of this could be found than blurred or faintly-printed type. This should be sharply cut, and what is technically called "heavy faced," in contradistinction to "light faced" type. Of the former a common example is the English; of the latter, the American.

The ink is also a matter of importance.

English ink, like the type, is vastly superior to American. The color and quality of the paper has also an influence upon the ease with which the act of vision is performed. For, while it is true that there should be as much contrast as possible between the type and its surroundings, care should be taken to avoid all glare or dazzling of the page. Pure white paper, such as is ordinarily used in this country, should not be employed, most of all when it has, as it often does in the cheaper papers, a metallic lustre with a bluish tinge. I have come to the conclusion that, as a rule, a very light, almost imperceptible, yellow tint is the best. This is known in the trade as "natural" tint, from the fact that it contains no dye whatever, and has been bleached only to a moderate degree. It has the color of unbleached cotton cloth. It is, however, expensive, as it can only be made from the best stock; still a very good imitation can be had in some of the second-class papers, at a moderate cost. The paper should be thick enough not to be transparent, should have a close, fine texture, and be free from sponginess.

From these facts I am of the opinion that, both in respect to size and quality, imperfect type may be considered as a factor in the production of eye diseases.

Third question.—"Whether too long and constrained attention to one object without rest or variety will cause eye-disease?"

That prolonged tension of the eyes may be the primal cause of a great number of diseases of the eye is admitted by all authorities, and the more fixed the gaze, and the narrower the field of view, the greater the danger. If it be true that continued tension of muscular and nervous force unduly exhausts the energy of any organ, it is doubly true of the eye. The nervous energy of the retina, sensitive and rapid as it is, is just as rapidly exhausted, and the act of reading would be unbearable after a few moments, if the eye did not quickly change its position from letter to letter, and from line to line. Diversity of action is as much a necessity in the case of the eye as of any other organ for an easy and lasting performance of its function. No eyes, in my opinion, should be used more than an hour at the farthest in the act of reading or writing without an interruption of the gaze, and it would be better if several, if not many interruptions should take place in the same time.

This usually happens in the case of adults for some reason or other; but children, in order to complete their tasks in an allotted time, are often compelled to use their eyes, without sufficient interruption, by the hour together. It would be impossible, and out of keeping with the condensed character of these remarks, to enumerate here all the diseases which may arise from prolonged tension of the eyes on near work; but there is an affection produced by it which is so frequent in its occurrence, and so unfortunate in its results, that I cannot refrain from saying a word in regard to it, using substantially the language of one who is the greatest authority on the subject instead of my own. Professor Donders thus remarks:

"The distribution of near-sightedness chiefly in the cultivated ranks points directly to its principal cause: tension of the eyes for near objects. Respecting this fact there can be no doubt.

"Three factors may here come under observation:

"1st, pressure of the muscles on the eyeball in strong convergence of the visual axes; 2d, increased pressure of the fluids resulting from accumulation of blood in the eyes in the stooping position; 3, congestive processes in the eye which, tending to softening, give rise to extension of the membranes. Now in connection with the causes mentioned, the injurious effect of fine work is by imperfect illumination still more increased.

"To this it is to be ascribed that in schools where, by bad light, the pupils read bad print, or write with pale ink, the foundation of near-sightedness is mainly laid, which, in fact, is usually developed in these years."

Fourth Question.—"Whether the angle at which the light strikes the eye is important, that is, ought it not to fall, not full in the face of the child, but first on the book, or work, and be reflected into the eye?"

Before answering this question precisely as it now stands, I should like to premise it by making the general assertion that not only is the direction in which the light comes important, but also its quantity and quality. Reduction in illumination is, as a rule, precisely equivalent to a reduction in the size of the object. Therefore, the less the light, the nearer an object has to be brought to the eye, and the greater the strain in the act of vision.

It is impossible to fix with any scientific exactness just the size that a window should be to give sufficient light for visual purposes, since this must vary with the exposure and surroundings of the room; but it has been reckoned in Germany that for a class-room containing twenty persons, there should be at least 4,000 to 6,000 square inches of glass, which would give to each scholar, from 200 to 300 square inches, or what would be represented by a pane of glass from 14 to 17 inches square. Such a room as this would be sufficiently lighted in any part. A room 20 feet square should not contain less than 70 to 80 square feet of glass, and it may be laid down as a rule that too much light cannot be obtained in a room, as an excess of glare can be guarded against by artificial shades if properly applied.

More light enters a room from the same amount of glass from the south than from the north, and a southern, south-eastern, or south-western exposure is better than a northern, north-eastern, or north western, especially for class-rooms, and this, too, simply in regard to the amount of light, and independent of the purifying influences of direct sunlight.

That a north room is better for the purposes of the artist is due to other causes, and does not affect the general rule.

The light should not come from directly in front, and especially is this the rule when artificial light is used. For when the light comes from directly in front of the person, the pupil of the eye becomes unduly contracted, which is equivalent to reducing the quantity of light, since less light enters the eye from the object viewed, while the eye is exposed to too much light reflected from the surrounding objects and from the direct rays from the source of illumination.

Neither should the light come from directly behind, as the object then lies in the shadow of the body. Nor yet from the right side, because in writing the shadow of the hand falls across the page, and a moving shadow over a lighted surface not only reduces the quantity of light and leads to a stooping position, but it is also more annoying to the eye than a uniform reduction in the illumination of even a greater degree

The best direction for the light to come is from the left-hand side, and from rather above, than below the level of the head. Windows, therefore, should not run down too near to the floor, as they often do in class-rooms and offices.

I cannot agree with the opinion, often expressed, that the best direction for the light to come from is from directly above.

I cannot refrain from adding, in this connection, the conclusion, founded on Dr. Cohn's elaborate investigations in regard to the near-sightedness among school-children from Germany. He thus formulates it: "The narrower the street in which the school-house was built, the higher the opposite buildings, and the lower the story occupied by the class, the greater the number of near-sighted scholars."

I should then, from these considerations, say that the angle at which the light strikes the eye is important, and that it ought not to fall in the face of the child, but first on the book or work, and be reflected into the eye.

Progress of Medical Science.

Treatment of Membranous Croup.—Dr. Walcher claims to have had great success in the treatment of membranous croup, both in its primary form and in the form which he regards as secondary to diphtheria of the pharynx. He employs the alcoholic tincture of eucalyptus globulus. Prof. Gubler and Dr. Gimbert, of Cannes, have shown that eucalyptol, the active principle of the eucalyptus, has a special action on chronic catarrhs, with muco-purulent secretion, especially when located in the lungs, and that the resinous principle is chiefly eliminated through these organs. Dr. Walcher employed it with benefit in doses of from 2½ to 5 drachms per diem, in cases of chronic bronchitis in old people, and in a case of pulmonary gangrene that recovered. He then tried it in several cases of croup, and it succeeded beyond his expectations; in one case a cast of the entire trachea and of the first and second bronchial bifurcations was coughed up, and the patient, a child five years of age, recovered. He has now discarded local applications, and orders an ounce of the tincture of eucalyptus with three ounces of syrup, a teaspoonful of the mixture being given every hour. The children take it readily, and if given slowly, any diseased part in the pharynx will be sufficiently impregnated with the medicament. A mild emetic of ipecac is given occasionally, if the patient be strong enough to bear it. Cold drinks are given to relieve thirst, and cold applications are made to the head, if there is much congestion. The child's strength is to be kept up by proper nonrishment; the alcohol contained in the above mixture is serviceable in this connection. Dr. Walcher has given five drachms and more of the tincture of eucalyptus per diem to a child five years of age, and has never known any bad symptoms to be produced by it. Dr. Siegen thinks that it is indicated in all febrile affections of the respiratory organs, and especially in whooping-cough.—*Gazette Médicale de Strasbourg*, Feb. 1, 1877.

Treatment of Hysterical Anæsthesia.—At the meeting of *Société de Biologie*, on January 13th, M. Charcot drew attention to the investigations of M. Burg, on the treatment of certain hysterical affections, especially anæsthesia, by what he calls metallotherapy. Then, for instance, a number of twenty-franc pieces, bound together, are applied to an anæsthetic limb, the sensation will be restored at the end of fifteen or twenty minutes. The phenomena that are observed are the following: Augmentation of the temperature, dysæsthesia, and finally complete return of sensibility, reappearance of the muscular power, progressive extension of the sensitive zone to a wider space around the metal, or even to the entire limb, and finally dilatation of the capillaries. The last is demonstrated by pricking the anæsthetic points with a pin; before the application of the gold this causes no bleeding, but after the application it is followed by considerable flow of blood. The sensibility, after its re-establishment, remains for a few hours, sometime for an entire day. M. Charcot has seen the same results follow the application of the gold in anæsthesia of many years' standing due to cerebral lesion. Hence, Trousseau erred when he insisted that metallotherapy might be used as a means of settling the diagnosis of hysteria. The phenomena are undoubtedly electrical in nature. On the one hand the metallic applications produce currents, and on the other a battery, producing currents of the same intensity, causes exactly the same effects. The sensitiveness of patients to one metal, as gold, or zinc, or copper, to the exclusion of the others, seems to depend on the differences in the intensity of the currents produced by the different metals. Thus, a patient who is affected by the current produced by copper will be unaffected by the weaker current produced by gold, but will be affected by a current from a battery equal in intensity to that produced by the copper; *vice versa*, a patient affected by gold will also be affected by an equally weak current from a battery, but will be unaffected by copper, or currents equal in intensity to those produced by copper.—*Gazette Médicale de Paris*, Feb. 3 and 10, 1877.

The Lateral Movements in the Knee-Joint in Cases of White Swelling.—These movements have been ascribed by surgical writers exclusively to alterations in, or destruction of the peripheral ligaments. M. Moutard-Martin, however, has had opportunities of observing four cases which presented this sign during life, and in which the autopsies showed that the ligaments retained their normal strength, while the cartilages were greatly altered, or even absolutely destroyed. The first case was one of suppurative arthritis, consecutive to osteomyelitis, and the lateral movements during life were attended by crepitation. The autopsy showed destruction of the cartilages, but the anterior, posterior, and lateral ligaments were healthy; only the accessory fibrous bands which form the capsule presented fungous growths. The three other cases were instances of white swelling, and in none of them was crepitation present during life. In two of these cases the internal surfaces of the capsular ligaments were covered with fungous growths, and in one there was an opening through the internal lateral ligament into the bursa that separated the gracilis from the knee-joint. In all three cases, however, the true ligaments preserved their normal thickness and strength; they were neither relaxed nor softened. On the other hand, the cartilages were either thinned and atrophied, or were softened, ulcerated and destroyed in part, so that the space between the bones was incompletely filled out. In the first case, both cartilages and fibro-cartilages had entirely disappeared. These changes in the cartilages are quite sufficient to explain the abnormal lateral mobility In one of the cases the crucial ligaments were still in tact. It is quite possible that in all these cases, if life had been prolonged, the abnormal movements

would ultimately have produced stretching and disorganization of the true ligaments. If these observations are confirmed by further autopsies, lateral mobility will become an important indication for the production of anchylosis, or for amputation or resection.—*Le Progrès Médical*, Feb. 3, 1877.

Double Phlegmatica Dolens with Disease of the Sacrum and Coccyx.—At a recent meeting of the *Société de Biologie* M. Dumontpallier presented some specimens which tend to throw some light on the origin of this obscure disease. A young girl had reached the twenty-first day of a typhoid fever, when suddenly the left lower extremity became painful, œdematous, and of a blue and white color. Two days afterwards the left leg and thigh were similarly attacked. The case terminated fatally, and at the autopsy the usual lesions of typhoid fever were found, and in addition coagulation of blood in the primitive iliac veins, prolonged on both sides into the crural. M. Dumontpallier then examined the pelvic veins, and found that the sacrum and coccyx were the points of departure for the coagulation in these vessels. Those that supplied the sacrals and their branches were filled with old clots, while the primitive iliacs and the crurals contained recent ones. —*Gazette Obstetricale*, 4, 1877.

Purulent Inflammation of the Umbilical Vein in Infants.—Dr. Roper has reported two fatal cases of pyæmia in infants. In the first, the only abscess found during life was in the neighborhood of the right deltoid muscle. After the separation of the cord on the fifth day, the parts about it continued red. Death occurred on the nineteenth day. After death general peritonitis was found, and the umbilical and portal veins were inflamed and full of pus. No pyæmic deposits were found anywhere. About the same time he attended a primipara, and applied forceps. After a week the child developed abscesses in the wrists and feet, and the right lower limb became gangrenous as far as the hip. It died on the fourteenth day. The only lesion in this case was purulent inflammation of the first inch of the umbilical vein. In another instance reported by Dr. A. W. Edes, the child developed abscesses about the end of the first week of life. Abscesses formed in the right shoulder and right lower limb. Death took place on the eighth day. The post-mortem examination showed local peritonitis, inflammation of the umbilical vein, which contained pus; there was also plugging of the right femoral vein. This case also was held to be an instance of pyæmia.—*Obstetrical Journal*, Feb., 1877.

Cassia Alata in the Treatment of Ringworm.—Dr. Tilbury Fox, of London, writes to the *British Medical Journal* that he tried the efficacy of this Indian remedy some ten years ago, and though he found it of some value, thought it had no special advantages over other parasiticides. He also holds the same opinion in regard to goa-powder, which has a reputation in the treatment of ringworm. Dr. Boulton, however, regards the latter as a specific.—*British Med. Journal*, Feb. 3, 1877.

Excision of the Knee-Joint by a New Operation.—Mr. Treves, of Margate, gives a record of eight cases in which he has performed this operation, and with only one fatal result. His success he attributes in part to having secured and preserved immobility of the limb, in part to careful after-dressing. The plan of the operation is as follows: A semilunar incision about three inches in length is made on each side of the joint; then the lateral ligaments are divided and the tissues deflected until the synovial cavity in front is opened. If there are adhesions here, they are divided. A wide director is then passed behind the joint in front of the posterior ligaments, and with a narrow bistoury the crucial ligaments and any adhesions between the bones are divided. Next a metal retractor is inserted in front of the bones, to prevent the tissues from being injured. The blade of a butcher's saw is used to take off a thin slice from the joint-ends of each bone. The chief advantages he claims are: 1. Decided improvement in the appearance of the limb. 2. Greatly increased power of extension. After ordinary excision, extension is often feeble from the divided and shortened extensor tendon. With this operation they are able to lift the leg before union is firm. 3. The extensor tendon being attached to the tibia in front, whilst the posterior ligament is intact behind, the bones are not so loose, and the tibia is not so likely to get displaced. 4. The sawn surfaces, being in a measure protected, unite more kindly than under the usual operations.—*British Med. Journal*, Feb. 3, 1876.

Theory of the Action of Nitrite of Amyl.—Dr. Mader is of opinion that the dilatation of the vessels which follows the use of nitrite of amyl is referable to the action of certain vaso-motor centres of the spinal cord rather than to a direct paralysis of the muscular coat of the vessels. In the latter case, he argues, we should have symptoms of hyperæmia of the lungs, of which there is no indication. Secondly, a directly paralyzing influence would pre-eminently affect the heart; and this is not so. Thirdly, there would necessarily be paralysis of the vessels of the whole body. Fourthly, the production of congestion of the head is not peculiar to this drug alone, but also occurs with alcohol and the ethers, to which it is allied, and their action on the nervous centres cannot be doubted. Fifthly, he made this experiment, which he considers disproves the directly paralyzing action of the nitrite. He enclosed the hand and forearm of an anæmic girl in an air-tight rubber sack, into which the nitrite was then introduced without producing the slightest redness. Dr. M. thinks it is quite open to question whether the action of nitrite of amyl in dilating the vessels is really that to which it owes its therapeutic effect, and is not rather a disagreeable accompaniment, while its useful effects are due to the production of a transitory narcosis analogous to that produced by alcohol, ether, or chloroform.—*Bericht der k.k. Krankenanstalt Rudolph Stiftung, in Wien*, 1875.

Croton Chloral.—From trial of it in some forty cases, Dr. Mader has found croton chloral a useful hypnotic, in doses of from grs. 7½ to grs. 22½, sometimes answering in both medical and surgical cases where morphia or hydrate of chloral was contraindicated. He did not find it act satisfactorily, either to relieve cough or to cure neuralgia, even if it did produce sleep.—*Bericht der Rudolph Stiftung*, 1875.

Tinctura Corticis Coto.—This tincture, prepared from a Peruvian bark, has been used by Dr. Mader as a remedy for diarrhœa in some thirty cases. It is given in doses of ten drops once in two hours up to as high as ninety drops in a day. Owing to its acrid taste it should be given diluted with water, and extract of liquorice should be added. It proved itself a good astringent in the cases mentioned, but not equal to opium. It will require further experiment to determine whether it will have special value in the diarrhœas of children, where it is undesirable to give opium.—*Bericht der k. k. Krankenanstalt Rudolph Stiftung, in Wien*, 1875.

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THE PROSPECTIVE PHARMACOPŒIA.

Two pamphlets * are before us, both devoted to the consideration of the same question: How and by whom shall the next Pharmacopœia be constructed?

We believe that it is quite universally conceded by those who have given the subject special consideration that the Pharmacopœia of 1873 is a pretty poor affair, and that the construction of a better one is one of the most pressing and important subjects before the profession at the present moment, for upon a good pharmacopœia depend our best hopes of successful therapeutics. We shall therefore consider in some detail the plans advocated in the pamphlets under notice.

Dr. Squibb proposes that the American Medical Association shall at its next meeting recommend the formation of a "Pharmacopœial Council," who shall have the entire charge of the work of constructing and bringing out the next Pharmacopœia. This council is to be composed of five members, of whom one shall be appointed by the American Medical Association, one by the Surgeon-General of the U. S. Army, one by the Surgeon-General of the U. S. Navy, and two by the American Pharmaceutical Association. Suitable provision is made for the supply of any vacancies that may occur in the *personnel* of the Council. This body, aided by additional experts, shall prepare and publish, as soon as practicable, a revised pharmacopœia, which shall include not only specific directions for compounding the officinal preparations, but also much additional matter of value to the apothecary, such as practical manipulative details, tests for the quality and purity of drugs, etc. This Pharmacopœia shall be thoroughly revised after a certain number of years. In the meantime, however, the Council shall publish an annual fasciculus or supplement, containing notices of such new matters as may be expedient. The copyright of the book is to be vested in the American Medical Association, and the profits from its sale to be expended upon the experts employed by the Council. This is a brief outline of Dr. Squibb's plan, and for details we must refer to the pamphlet itself.

It will be seen that if this plan is carried out the long-honored U. S. Dispensatory will be no longer required, as the Pharmacopœia itself will contain the essential matters which, heretofore excluded from the latter, have rendered the former a necessity. As a matter of economy this is to be desired. Comparatively few physicians possess either the present Pharmacopœia or the Dispensatory. The first is of very little use to them, and the latter is quite expensive. The cost of the Dispensatory is in part due to the fact that it is a disquisition upon the British as well as the U. S. Pharmacopœia, and contains a great deal of matter that may be interesting reading in England, but which is of little real value here. This extraneous matter most physicians will not pay for, and druggists would not if they could help themselves. A new Pharmacopœia, therefore, which included more than the old one, and less than the Dispensatory, would be a boon to many physicians whose pockets will not permit the indulgence of extravagant outlay. It is highly probable, therefore, that a four or five dollar book would go into many hands that desire and need it, and which are not reached by the present ten-dollar Dispensatory.

The present Dispensatory being the only book upon the subject of which it treats, is necessarily the best one. That it is the only one is due in part to the fact that the book has been made one of great value (to those who can afford to possess it), through the indefatigable industry and the skill of its honored authors, Drs. Geo. B. Wood and Franklin Bache. All things must have an end, and if our next Pharmacopœia is constructed upon the old plan, an explanatory Dispensatory founded upon it must be entrusted to new hands, which may or may not perform the task as well as it has been performed in the past. We will then have, as before, two books, neither of which will reach the majority of the profession. We confess, therefore, that we are favorably impressed with Dr. Squibb's plan, and we believe that its practical details can be carried out with success, and to the satisfaction of the profession at large—that is, to those whose personal interests would not be impaired by the change.

Dr. H. C. Wood objects *in toto* to the proposed plan, believing that it is much better to continue in the old way; that our last Pharmacopœia is a very good one; and that the next one, if constructed under the same auspices, will be good enough, provided it is accompanied by a Dispensatory, to be edited, in all probability, by himself. We shall consider some of Dr. Wood's arguments in our next.

* The American Medical Association and The Pharmacopœia of the United States of America. By Edward R. Squibb, M.D. Brooklyn, 1877.

The United States Pharmacopœia and the American Medical Association. By H. C. Wood, M.D. Philadelphia, 1877.

CHEAP MEDICAL EDUCATION.

Our correspondent from Wisconsin, with an enthusiasm which is perhaps worthy of the cause, again volunteers to set us right upon the subject of cheap medical education. It appears to us, however, that the questions he asks almost answer themselves. Except that he is avowedly a champion of the other side, we should believe that he entirely agreed with us. At best, we can do no more than excuse ourselves for being misunderstood.

The burden of objection on the part of our correspondent is simply, that while the larger colleges may seem to teach for money, the smaller ones certainly do not. Assuming also that medical instruction is not merchandise, and that there is a higher incentive than mere money for the cheap colleges to continue their work, we are almost persuaded that such institutions are the best. But we do not see why it is necessary to go so far to prove that there is still some honor in the profession. We confess that we hardly doubted the fact; certainly we are sorry that we conveyed the impression that a professor in a cheap college was dishonorable or void of conscience because he gave the students their money's worth.

If he does more than his duty "regardless of price," he has an extra consciousness of good work performed which the higher-priced teachers can never feel. But as virtue always brings its own reward, so much the worse perhaps for the high-priced professor, and so much the better for the poor student. Notwithstanding all this, we are not yet convinced that students attend Bellevue or the University more for the prestige of the thing than for any superior advantages they may enjoy. The fact that some of the graduates of these schools, who occasionally straggle in the neighborhood of our correspondent, are found wanting, is bad enough; still, these men are not without hope, when it costs so little to obtain first-class instruction.

For the sake of the argument, we are somewhat disappointed to learn that our critic founds his assertions upon the personal observation of one particular faculty; as such is, probably, his alma mater, we have a right to look upon his point as much in the light of an exception as he has to make it the rule.

No one is willing to say that the teachers in our cheap schools are not thoroughly competent. We never questioned the fact. Indeed, we believe that their talents are first-class; we only object to their being hidden under so small a bushel.

THE NEW YORK HOSPITAL SCHEME.

There is a strong feeling of indignation in the profession against the recent course taken by the Governors of the New York Hospital in the establishment of their out-door department. Medical men who are dependent upon their practice for their living have a just right to complain. In another column we publish two of the many letters upon the subject, which we have received.

Obituary.

WILLIAM WOOD,

NEW YORK.

William Wood, the well-known medical book publisher, died suddenly of cardiac disease on the morning of April 9th, aged eighty years.

For nearly fifty years, and up to his retirement in 1868 from the firm of William Wood & Co., he was actively identified with the interests of medical literature in this country. As a publisher of medical works he was a recognized leader, and will long be remembered as one of the pioneers in this special branch of the trade. His position as such brought him in contact, from time to time, with the leading medical men of the country, with whose early struggles in authorship he sympathized, and in whose successes he gloried. Always upright in his dealings, cordial in manner, and firm in friendship, he earned for himself the respect and esteem of all who knew him.

He was of Quaker descent; his father, Samuel Wood, came to this city from England in 1803, and the small book-shop which he established at No. 362 Pearl street was the foundation of the present publishing house of William Wood & Co. In 1822 William Wood was admitted to partnership with his father and elder brothers. The business increased rapidly, and a large five-story building was put up on the old Pearl-street lot. The firm, influenced by the tastes of its younger member, then commenced the publication of medical works. As a consequence, the store on Pearl street soon became popular with the profession, and was the resort of its most prominent members. Here Francis, Hosack, Mitchell, Mott, and Stevens would meet to talk over their triumphs, discuss their plans, and learn of the new publications in which they were interested.

Samuel Wood died in 1844, but the business was continued in Pearl street until 1856, when the firm moved to No. 389 Broadway. In 1862 William Wood moved to No. 61 Walker street, and soon afterward associated with him in business his son William H. S. Wood, who is now the senior member of the present firm of William Wood & Co.

In 1865 Mr. Wood established the Medical Record, the pecuniary success of which has been the result of the rare business tact with which it has been managed from the start. His encouraging confidence in the editorial management of this journal is a grateful remembrance for the writer, and almost irresistibly prompts the utterance of sentiments which are sacred to the memory of personal friendship.

Since his retirement from business, Mr. Wood gave his almost undivided attention to the promotion of the interests of the Society of Friends, of which he, for a long series of years, was a very active member.

WILLIAM A. MUHLENBERG, D.D.,

NEW YORK.

The Rev. Dr. Muhlenberg, the founder of St. Luke's Hospital of this city, died April 8, in his 81st year. Graduated in 1814 from the University of Pennsylvania, he was ordained a deacon in the Protestant Episcopal Church by Bishop White, of Pennsylvania, and immediately afterward entered upon the duties of Assistant Pastor of Christ Church, Philadelphia. In 1821 he became the Rector of St. James' Church in Lancaster, Penn., where he remained six years. From

Lancaster he removed to the village of Flushing, Long Island, and established there the Flushing Institute, a school designed for the education of boys and young men in the Protestant Episcopal Church. In 1836 the institute was removed to College Point, Long Island, and was re-christened St. Paul's College; he remained its principal until the year 1845. In that year he came to New York to assume the Rectorship of the Church of the Holy Communion, situate on the corner of Sixth avenue and Twentieth street, which had been built, one may say, for him, by his sister, Mrs. Mary Ann C. Rogers, the widow of John Rogers, Esq., of New York.

Dr. Muhlenberg also established the House of Mercy and its accompanying Sisterhood, the first of its kind in the United States. The lady who was the first to enter the Sisterhood of the Church of the Holy Communion is at the head of the Sisterhood of St. Luke's Hospital at the present time.

The charity which has made Dr. Muhlenberg's name most widely known is undoubtedly St. Luke's Hospital. It grew from contributions of private individuals with such rapidity that its originator might readily be supposed a very energetic and efficient demander of alms. Such, however, was not the case. Dr. Muhlenberg was painfully shy in approaching people, and modest to a fault. It was in 1846 that he took up in his church the first collection for St. Luke's Hospital and gathered in the sum of $33. From this amount the fund swelled till at present his hospital occupies nearly an entire block on Fifth avenue and Fifty-fourth street, the buildings having been erected and formally opened by the year 1858.

Dr. Muhlenberg was installed as Rector of the chapel attached to the hospital, and took up his abode in the building itself, where he has remained until his death. Not content with succoring the sick, in 1864 he planned another charity which should save the young children of the city from misery and vice, and soften the remaining years of the aged and infirm. The plan was carried out in the little community of St. Johnland, on the north shore of Long Island, about forty-five miles from the city. Sick and crippled children, and those likely to be brought up in ignorance and destitution, are received in a children's home. There are appropriate buildings for old people of both sexes, a library and numerous other buildings, some of them being special gifts from individuals. Dr. Muhlenberg had most remarkable executive talents. Whatever he attempted was made a success.

Dr. Muhlenberg was the author of many well-known hymns. One is the famous "I would not live alway, I ask not to stay." Another is that beginning, "Shout the glad tidings, exultingly sing;" and still another, "Like Noah's weary dove." In 1823 he published a compilation of religious poems called *Church Poetry, being Portions of the Psalms, in Verse and Hymns, Suited to the Festivals and Fasts, from various Authors.* In 1852 appeared a second, entitled *Music of the Church;* and in 1858 *The People's Psalter.*

Bravais' Dialyzed Iron.—This preparation is recommended by the *British Medical Journal.* It is said to be a neutral solution of the peroxide of iron in the colloid form, all acid having been extracted by dialysis, and may be considered as the nearest approach yet made to the form in which iron exists in the blood. It is almost tasteless, has the good effects of iron without producing constipation, and has also the further advantage that it does not blacken the teeth.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 14, 1877.

Dr. E. G. Janeway, President, in the Chair.

EXTIRPATION OF RECTUM.

Dr. Briddon presented a specimen of extirpated rectum. He remarked that in November, 1876, he had exhibited to the Society a portion of rectum extirpated for cancer. It had been removed from a woman in the hospital department of the Colored Home. The disease commenced immediately above the internal sphincter, and extended two and a half inches up the gut, terminating in that portion upon which the peritoneum was reflected. The patient did very well after the operation, but finally succumbed from thoracic disease. He had expressed the opinion some time ago that there was a return of the disease in the cicatricial tissue, between the margin of the perineum and the contracted end of the rectum; the specimen in question, which had been removed two or three days before the meeting, exhibited, however, but little trace of the disease in that precise locality, but showed that it had extended to some of the glands above. The distance from the cicatrix to the retracted rectum was one and a half inches.

He then read the history of the autopsy, for which he was indebted to Dr. Wm. Kelley, house physician:

Eliza Walker. Autopsy thirty hours post-mortem. Rigor mortis marked. Body markedly œdematous; not very well nourished. Brain not examined. The right pleural sac was about two-thirds filled with a serous fluid. The diaphragmatic, costal, and visceral portions of both pleuræ were studded with tuberculous deposits—the right more so than the left. The left pleural cavity contained a small amount of fluid. Right lung was very much compressed, and in a state of carnification; numerous tuberculous deposits were found scattered throughout. Left lung was of normal size, and contained in its apex a patch of catarrhal pneumonia undergoing cheesy degeneration; at the centre of this a small cavity existed. In addition to a number of similar spots of small size, numerous tuberculous deposits were found. Heart normal. Spleen somewhat diminished in size, otherwise healthy. Liver smaller than normally; was very soft, and the seat of extensive fatty degeneration. A grayish-white mass, about as large as a goose egg, and a number of smaller growths, probably gummy tumors, were found. The largest one was softened, and had undergone cheesy degeneration; the others were quite firm. No secondary cancerous deposits could be detected. Kidneys were lobulated; otherwise healthy. The pelvic viscera were removed and examined. Bladder healthy. Uterus and appendages normal. Some slight peritoneal adhesions existed in Douglas's culde-sac.

From the anus to the lowest portion of the intestine (a distance of one and one-half inches) a pseudo-mucous membrane had formed, but no return of the morbid growth (removed on November 20, 1876) could be detected. At the juction of the intestine with the pseudo-mucous membrane a slight constriction existed.

In the cellular tissue adjoining the upper posterior portion of the false mucous membrane, a few enlarged lymphatic glands were found. A fistulous communication existed between the rectum and the vagina at the posterior commissure.

Dr. Mason asked how much control the patient had over the movements of her bowels.

Dr. Briddon answered that after the morphine was diminished she had a diarrhœa for several weeks, since which time she would be compelled to evacuate her bowels as soon as the desire to do so manifested itself.

ADENOMA OF SOFT PALATE.

Dr. A. H. Smith presented a tumor removed by operation from the soft palate of a patient who had come to him from the interior of the State with a diagnosis of malignant disease. The growth projected but slightly into the mouth, but the whole of the space behind the velum on the right side, and the adjacent pliarynx was occupied. The growth was about the size of a butternut. About two years ago the patient first discovered a small growth in the soft palate, which gradually increased until it became the size of an almond. At that time the physician who saw the case advised the application of caustic. The result was the formation of an eschar which, when separated, gave issue to a considerable amount of glary mucus-like fluid. The wound healed, and for a time it seemed as if the difficulty had entirely disappeared. A year ago last December the growth again commenced to show itself, and continued to increase until Dr. Smith saw him. He formed the opinion that the tumor was of that variety first described by Nélaton as adenoid. Extirpation was advised, and performed accordingly. The operation was very simple, and consisted merely in the division of the mucous membrane over the tumor, and shelling it out with the finger pressed from behind. The only embarrassment was in consequence of the cicatrix, which had to be divided with the scissors. The patient during the operation was placed in Ross's position, with the head over the edge of the table. The recovery was rapid and complete.

Dr. Smith remarked that the clinical features of these tumors were slowness of growth, painless character, freedom from attachment to mucous membrane, and their non-liability to pass beyond the raphe of the soft palate.

EMPYEMA AND PYO-PNEUMOTHORAX.

Dr. Janeway presented a specimen of empyema with pyo-pneumothorax, and read the following history:

Bridget Nolan, aged 23, Ireland; admitted January 4, 1877; family history unimportant; denies drink and venereal; had diseases of childhood; had one child, which was delivered without instrumental interference four months ago; since this time she has suffered from pelvic and lumbar pain, pain on defecation, and dysmenorrhœa. For the relief of these symptoms she entered this hospital. Examination revealed a retroverted and retroflexed uterus. The uterus is fixed; patient's general health quite good.

Jan. 14.—Yesterday patient was in the amphitheatre. In the evening she had a severe chill, followed by pain in the right chest of a lancinating character. These symptoms were soon followed by febrile movement and cough, without at first expectoration. This A.M. the temperature is 103°; P.M., pulse, 104; respiration, 30; temperature, 102¾°. Ordered ℞ quin. sulph. gr. x. t. i. d., and sufficient morphia to keep her free from pain.

Jan. 15.—The physical signs of consolidation are evident over the upper portion of the lower lobe of the right lung. Patient to-day expectorated a few rusty sputa.

Jan. 17.—The signs of consolidation have extended over the entire middle and lower lobes. Is having quin. sulph. gr. x. t. i. d.

Jan. 23.—This morning a few subcrepitant râles are heard over the consolidated lobes. Patient is perspiring profusely. Is still taking the quinine.

Jan. 28.—Is apparently improving. The physical signs indicate nearly completed resolution in the affected lung. Quinine discontinued.

Feb. 9.—Still complains of feeling weak. Has some dyspnœa. Has very little appetite, and eats scarcely any food. Physical examination this evening reveals *flatness over the entire right* chest, and bronchial respiration over a small space at the summit. Elsewhere respiratory sound is absent. The hypodermic needle was introduced, and a *syringeful of pus withdrawn.*

Feb. 10, A.M., temp. 99¾°; P.M., temp. 102°.

To-day patient is suffering from dyspnœa to a considerable extent; complains of feeling very weak; ordered whiskey ℥ss t. i. d. About 4:30 it was deemed advisable to aspirate the chest. This was accordingly done, and ℥lx. of pus removed. Toward the last gas was withdrawn with the fluid. The needle was removed, and on auscultation the succussion sound was heard. Patient appeared to suffer no inconvenience from the operation.

Feb. 11, A.M., temp. 100°; P.M., temp. 100⅕°.

Patient feels considerably better than before operation. On auscultation, amphoric respiration and metallic tinkling are heard posteriorly. Stimulants and occasional doses of quinine are given.

Feb. 12, A.M., temp. 98⅘°; P.M., temp. 99⅕°.

March 2.—Since last note the temperature has ranged between 99° and 102°. The fluid in the cavity has considerably increased in quantity. Is quite weak and takes little food.

March 3 to *March* 8, temp. 99–101°.

March 9, a free incision was made in the seventh intercostal space in the infra-axillary region, and about ℥xxiv. of pus escaped. The operation was followed by no unpleasant symptoms. This evening the cavity was washed out with dilute solution of carbolic acid.

March 10, A.M., temp. 101°; P.M., temp. 99°.

Patient passed a good night, and this morning seems quite bright. The pleural cavity is washed out twice a day.

March 11, A.M., temp. 98°.

This morning the patient appeared as well as she did yesterday. About 11 o'clock the pleural cavity was washed out. Just at the completion of the operation patient suddenly exclaimed, "Oh, doctor! my breath!" The heart's action ceased immediately. The pupils dilated widely, and with a few gasps patient died. External and internal stimulation were resorted to, and artificial respiration employed for twenty minutes.

The above is the ante-mortem history as given by my acting house physician, Dr. Taylor. On entering on duty on the 1st of March I found the patient with evidences of pyopneumothorax, the air having been found in the chest after an aspiration, and at that time evidence by amphoric respiration, voice, and cough of a communication of the pleural cavity with the bronchi. Of this part I had satisfied myself on the day after the aspiration. No evidence existed of such communication on the 1st of March, as there was absence of respiratory murmur of any kind and of the amphoric voice over the air in the chest. Dr. Peck, the house physician, assured me that no pus had been coughed up. I supposed that the cause of the entrance of air after the aspiration had been due to a small perforation of lung in some spot where perhaps the pleura was thinned by ulceration, or possibly at

the site of some abscess which had caused the empyema. The doctor assured me that he had not felt anything like the lung impinging on the needle during the aspiration. There were no evidences of disease in the other lung, save occasional râles, and this I ascribed to a slight bronchial catarrh, though I heard them at the apex. I weighed the case in my mind and decided in favor of opening the thorax for the following reasons:

1st. The previous aspiration had not reduced the size of the pleural cavity.

2d. The pus had reaccumulated.

3d. The lung, owing to the air and pus, was collapsed and pressed inwards and backwards on its root, and no signs existed of present communication between lung and cavity.

4th. The results of the operation in other cases had been favorable, either curing or alleviating to a greater extent than repeated aspiration.

5th. I had seen a number of cases in which death had occurred where the operation was not performed, and I believed and believe that a greater number will recover of those operated on than of those not operated on.

6th. I did not see any good reason to hope for a diminution of the pus-producing cavity except by opening the chest and allowing the pus to escape, and then endeavoring to obtain a retraction of the affected side.

I stated at my clinic that I would have much preferred operating on the case had the upper lobe been adherent to the chest wall, as it so often is in empyema, thus reducing the size of the pus-producing cavity.

Autopsy twenty-seven hours after death.—Brain normal. On opening the pericardium I noticed that the right ventricle was distended, and hence percussed over it. It was tympanitic. I then punctured it with the point of a knife, and a quantity of odorless gas or air escaped with a "pfiff" sound, and the walls fell together. There was also some air in the right auricle. I immediately examined the condition of the venæ cavæ, and found no lesion of them nor of the innominate veins, etc. The right ventricle contained, after the air escaped, only a few small clots not in the least different from ordinary black clots; the right auricle some black clots and fluid blood. The left ventricle was nearly empty and contained no gas, the left auricle contained only blood.

I have to regret that in the examination I could not speak of the contents of the pulmonary artery with certainty, as the heart was cut out, and I think blood escaped. In the left lung the branches contained blood. In the right the branches, when I removed lung, were nearly empty.

The right pleural sac contained some of the remains of the fluid injected, and the rest was filled with air. The right lung was collapsed, carnified, pressed upwards and inwards on the root. The pleura covering it was thickened and opaque, and presented at the upper part of the lower lobe an irregularly oval loss of substance about an inch long and one-half an inch in depth leading into the lung tissue. In this I found a branch of the pulmonary artery of some size separated from the air-holding space of the pleura only by the thickness of its own walls. The costal pleura was markedly thickened. The other lung was normal. The liver and kidneys were somewhat congested, but otherwise normal.

There were evidences of old pelvic cellulitis and peritonitis, and of some thinning of uterine wall at joint of flexure junction of neck and body.

The other viscera were normal. A careful examination showed absence of gas development in the blood; in other situations an absence of the least sign of decomposition about the body or its organs, and you see in the lungs and heart which I present after two days the absence of any evidence of decomposition at the present time, these organs having been preserved simply by exposure in the atmosphere wrapped in a damp cloth.

I had supposed that the evidence as to the cause of the sudden death would be negative, and that we should have to consider it as due to syncope; but finding the gas in the right side of the heart without evidence of decomposition as its cause, and finding it there exerting pressure on the containing wall, it seems to me that we shall have to consider it as the cause of the arrest of cardiac action. The question arises as to its origin. It could only come from the venæ cavæ, the venæ azygos, or the pulmonary artery on the right side, or else be developed from the venous blood. I looked at the venæ cavæ and the venæ azygos, and there was no point for its entrance in these, and in the azygos there was fluid blood without air bubbles, so that it did not pass from an intercostal vein into this. If the pulmonary artery alluded to had been its source, we should expect evidence of blood escape into the tissues if a lesion existed in its walls; and more, the air would, in case of no lesion, have made its way in opposition to blood current, and through the valves. I had at first thought of this as a possibility, but I must confess that more mature reflection makes me feel that it is a scarcely probable case.

The other supposition which I have mentioned, viz., the development of gas from the blood, I believe to have been the real condition and cause. This, as a cause of sudden death, is spoken of by Foerster, though he says he never saw a case under the head of pneumatosis of the heart, in his work on pathological anatomy. He also there gives some literature citations. Rokitansky and others, as far as I have had time to examine them since, pass the subject without mention, or as Wagner with the barest allusion.

Some years since I saw a case of gangrene of the leg due to a diffuse cellulitis, in which the death was very sudden, and in which I supposed that gas had entered the circulation from the decomposed blood in the veins of the affected part, as I found it there in the right cardiac cavities; but as the weather was warm and the body commencing to decompose, I could not be positive.

This and the case I present to-night are the only cases of the kind in my experience. I record the case on account of its rarity, and also because I believe that we should report our unsuccessful as well as our successful cases.

CEREBRO-SPINAL MENINGITIS—PSEUDO-MEMBRANOUS CROUP.

Dr. M. P. Jacobi presented the larynx, right lung, and the spinal cord from a babe five months old. She saw the patient only once, and that half an hour before its death. Two weeks before this, the patient, together with another child, aged twenty months, and of the same family, was seized with vomiting and fever; showed evidence of pain in the head and rigidity of the sterno-cleido muscles. The pulse, at first rapid, soon became slow and intermittent. There was only a single attack of vomiting; no other sign of gastro-intestinal disturbance, nor of lesion of any other apparatus than the nervous. In the older child there was a diffused erythematous redness over the body, which lasted one day. The other symptoms lasted five days, and gradually disappeared. Then

both children were seized with catarrhal fever, ushered in by stomatitis, attended by some degree of laryngitis and intense bronchitis. The symptoms of the first week seemed of more importance from the fact that, four weeks before the children were attacked, the mother had been seized with precisely the same symptoms, with the addition of vertigo, which still continued. The pain in the back of the head and neck had been intense, and accompanied by cutaneous hyperæsthesia. There had been also suffusion of the eyes, earache, and some dysphagia. In her case there was but little fever; but she still kept her bed, six weeks after her seizure.

The babe, after passing through its catarrhal fever, was apparently recovering, when one night it suddenly fell into a condition which the two physicians who saw it described as resembling an apoplexy or the effects of an overdose of opium. It was insensible, and incompletely paralyzed; the respiration at first little interfered with, although some hoarseness existed. Soon, however, the supra-clavicular spaces began to be depressed, as also the epigastric region during inspiration. There was no decided stridor of croup, but simply a noisy sound at inspiration. When Dr. Jacobi saw the child it was completely cyanosed, and evidently suffering from marked laryngeal stenosis. Auscultation was then quite unsatisfactory, and dulness was discovered at the base of the right lung. Death occurred ten hours after the seizure. The opinion was expressed by Dr. Jacobi that the first attack of illness was an abortive form of cerebro-spinal meningitis, such as is described by Hirsch. The death, however, was evidently due to asphyxia—in all probability from membranous croup, suddenly developed upon the catarrhal laryngitis.

The autopsy was made seven hours afetr death. The brain presented all the appearances of asphyxia; otherwise was normal. The spinal cord was hyperæmic. A soft black clot, half an inch in length, was discovered lying under the pia mater, on the right antero-lateral column of the cord in the cervical region. A pseudo-membrane was firmly attached to the entire mucous surface of the larynx, whose mucous membrane was hyperæmic, but not eroded. A mucopurulent secretion occupied the trachea and right bronchus, while the portion of lung corresponding to the latter was solidified.

The points of interest in the case were: 1st. The very rapid development of the pseudo-membranous croup, and the absence of diphtheria. 2d. The collapse of the entire lower lobe of the right lung, apparently in consequence of the obstruction of the bronchus. The question arose whether this collapse had taken place gradually, or had occurred suddenly, and so marked the invasion of the acute fatal symptoms. 3d. Another question, whether the clot in the cervical cord indicated a hemorrhage that had occurred at the outset—therefore in a morbid cord—or was merely the consequence of the asphyxia. 4th. Finally, the cerebro-spinal symptoms during the first half of the illness, which, from the clinical grouping, suggested the diagnosis of an abortive cerebro-spinal meningitis.

After the presentation of a specimen of Bright's kidney by Dr. Messenger, the Society went into executive session.

Training-School for Nurses.—The building formerly occupied by the Medical Department of the University of this city, has been purchased for the Training-School for Nurses, is being fitted up for early occupancy.

Correspondence.

CHEAP MEDICAL EDUCATION.

To the Editor of The Medical Record.

Dear Sir:—I thank you for your article on the subject of Cheap Medical Education; but desire to take exception to it in one or two instances, where I think you have a wrong apprehension of the other side of the question.

You take a very practical, business-like view of the matter, but you will certainly have to admit before you are through, that merchandise is not medicine, and that you cannot even compare them in the matter of medical instruction and its recompense, and still hold to the long-established imputation of honor in the profession. Our western professors will hardly thank you for your microscopical idea of their consciences in the matter of imparting instruction to students.

If it is a case of so much education for so much money, then I apprehend few would be slow to acknowledge the fact; if they do not, a stigma is cast upon the pretensions of those who have such institutions in hand, and their business must be illegitimate; and yet I dare say no professor of any branch of medicine, outside of New York, would say that the instruction he gives is not the very best he can, regardless of price. How, then, can you harmonize professional honor with this conscienceless business; for it is nothing less, since there is no responsibility greater than that which rests upon those whose business it is to impart a knowledge of medicine to those who intend to make its practice the business of their lives. I am acquainted, personally, with but one medical faculty; but I opine *they* are not composed of the cheap sort of stuff you so flippantly refer to. You seem to forget, in speaking of the large number of students who are willing to pay the high prices for instruction, that there is a disposition in the average American youth to excel, and that oftener in the case of spending his dollars than in that of acquiring knowledge, and I am of the opinion (perhaps wrongly so) that the *prestige* gained by attending Bellevue or the University, would weigh more in the balances against the cheaper school, than a conviction that the *knowledge* to be gotten is superior. One does not seldom find proof of this, even as far west as Wisconsin, in the stragglers from the "Metropolitan" schools that are occasionally met with. It would be only boasting to attempt to refute the slur that is cast upon our western practitioners in asserting that they cannot compete with their brethren of Boston, Philadelphia, or New York; so I pass it. I quite concur with you in the fact that cities which do not furnish sufficient clinical instruction are not the ones desirable for medical colleges; but cities the size of Chicago and Cincinnati furnish an abundance of clinical material, and it is somewhat amusing, to say the least, to see them classed among the "obscure towns." Your argument as to "scanty means" and "scanty time," and the poor chances of professional success, which you say necessarily follow these, is not valid, as you and every one else have every opportunity for knowing; for we meet daily, in print and out, with those whose circumstances have been those you describe who have attained to affluence, and many to eminence by the exercise of that medical judgment which had its training in the cheap schools of the country.

In looking over the names which stand at the head

of the profession in America, we find not a few whose early medical career was not promising, by reason of scanty means.

Among those names is that of Prof. N. S. Davis, of Chicago, one of the founders of the American Medical Association, and who is at present Dean of one of those cheap colleges of Chicago.

J. B. Stair, M.D.

Juda, Wisconsin, April 2, 1877.

MEDICATED DISCS FOR HYPODERMIC INJECTIONS.

To the Editor of The Medical Record.

Sir:—Every once in a while we find in the *Lancet*, *Medical Times and Gazette*, and other English journals, puffs of various proprietary articles. Recently, Savory & Moore's medicated gelatine discs, for making hypodermic injections, received a flattering notice.

To-day we obtained a small package of them marked morphia gr. $\frac{1}{6}$. In the package were twenty-two discs, the total weight of which was less than two grains, or less than a tenth of a grain each. Query: How can S. & M. put a sixth of a grain of morphine into a wafer, which, including gelatine and medicine, weighs less than the tenth of a grain?

Respectfully yours, H. G. P.

THE NEW YORK HOSPITAL AND SMALL FEES.

To the Editor of The Medical Record.

Dear Sir:—The profession is under many obligations to the Record for the outspoken manner in which it criticises medical abuses, and if any fault is to be found in regard to the article on the New York Hospital management, it is that not sufficient severity has been used. In a recent number of the *New York Herald* the regulations of the out-door service of the New York Hospital are published, and from them it would seem that the institution assumes to itself the rôle of consulting physician and surgeon, and proposes to furnish the patient with a written opinion for the guidance of the regular medical attendant (regulation ninth). I would wish to inquire if such a proposition is not opposed to the sentiment of the profession, and a dishonest assumption of the rights and prestige of an hospital over those of the ordinary attendant; for what physician would care to be presented with instructions from the out-door department of any hospital regardless of the position such an hospital might hold?

Junius.

New York, April 7.

To the Editor of The Medical Record.

Sir:—The editorial in your issue of April 7th, on "The New York Hospital and the Abuse of Medical Charity," will certainly receive the hearty endorsement of the great mass of the profession in this city and neighborhood. There is one point, however, to which you did not call attention, namely, that the cheap medical service scheme inaugurated by the governors of the Hospital, to be successful, requires the acquiescence and co-operation of the attending physicians and surgeons. In other words, they become parties to the matter. Now, most of these gentlemen are eminent in the profession, and enjoy fair, and some of them large, professional incomes, a portion of which are derived from patients, medical, surgical, and special, that have been referred to them by, in many instances, their less prosperous brethren. Now, with unseemly ingratitude, not content with that which has been freely given to them, they make a special effort to deprive the humbler members of the profession of even the little that is left to them, fulfilling the old proverb, "To him that hath shall be given, and from him that hath not shall be taken away even that which he hath." The Clinton Medical Institute, the New York Medical University of J. Walter Scott, *et id genus omne*, which charges, I believe, $10 per month, or so, for medical services, are in these particulars respectable in comparison with the New York Hospital. If the attending physicians, surgeons, and specialists of the Hospital continue to participate in this arrangement, the rest of the profession must, I presume, submit and suffer, unless, by withdrawing the consultation practice which they have heretofore thrown in their way, they finally succeed in bringing these gentlemen to a proper sense of their duties to their younger and less prosperous brethren. The hint that I here throw out I shall personally act upon, and I recommend its consideration to all who feel aggrieved by the action of the New York Hospital.

Respectfully yours,
A Struggling Practitioner
of Ten Years' Standing.

Jersey City, N. J., April 7, 1877.

DANGER OF INTRODUCING FLUIDS INTO THE NASAL PASSAGES.

To the Editor of The Medical Record.

My dear Sir:—Having this moment laid down No. 333 Medical Record, March 24, 1877, in which "The Danger attending the Introduction of Fluids into the Nasal Passages" is considered, I hasten to say, that in a general practice of fifteen years, I never remember to have seen a patient who employed medicated fluids in the fashion referred to, but that sooner or later was obliged to desist through discomfort or mischief to the ear.

I not only approve, but for some time back have worked on the plan suggested by Dr. Buck—swabbing out the naso-pharyngeal tract.

George H. Mitchell, M.D.

23 Frankfort Street.

AN EXTRAORDINARY CASE OF OPIUM INEBRIETY.

To the Editor of The Medical Record.

Sir:—I have recently visited a most remarkable man, whose eventful life presents so many interesting features that I think a short sketch will be acceptable.

Capt. Frederick Lahrbush was born in London, March 9, 1766, being now *more than* 111 *years of age*. This fact is well authenticated. Entering the British service at twenty-three, he was promoted for gallant action to a captaincy, and in that capacity served in various countries—Spain, Holland, India, and elsewhere, being part of the guard over Napoleon at St. Helena until 1818, when he left the ranks and became Governor of a convict station in Australia. In 1824, on a voyage to England, he was shipwrecked, losing his wife and all his earnings—£15,000 gold—and was himself picked up, senseless and exhausted. After twenty-four years more of this roving life he settled in New York, where he has since resided.

The principal point of professional interest in this history is, that Capt. L. has been *an opium habituate for seventy years!* A statement so extraordinary may seem incredible, but it is well attested. In 1807, while in India, he was attacked with diarrhœa, which gave way only to opium, and, when the legitimate necessity for its use had been fulfilled, he found himself, as is so often the case, an inebriate.

Taken, at the outset, in small doses—half-grain at most—and occasionally only, no increase was made for two years, and up to the tenth the additions were limited. From that to the fourteenth he advanced from twenty to thirty-six grains. From this point there was progressive increase, finally reaching a maximum of *ninety grains per diem* in 1856, when he came into the care of a gentleman who has since been his medical attendant. By judicious management this inordinate amount was gradually decreased, until in 1853 his quantum was only a half-drachm daily. Still further reductions were practised, and, for the last five years the dose per diem has been but a four-grain pill at bed-time. Proof as to this reduced amount is given by the fact that during its taking he once, in a fit of pique, swallowed six pills at a dose, and was thoroughly narcotized, which would not have occurred had he been habituated to a larger quantity.

Alvine torpor has been constant, causing at times a marked tumor in the ascending colon often so painful as to to demand professional interference. The ordinary obstipation has been met by enemas. Forty-eight hours is the maximum abstinence, any excess in this direction being *invariably* followed by diarrhœa and profound malaise. No other ill results of special import have been noted, and, till the middle of January, his health had remained sufficiently good to admit of passing several hours daily out of doors.

At the time of my visit—March 31—he was confined to bed, very feeble, and his early demise expected. Ten weeks before, after returning from a social call—made in a cab, several blocks distant—he was seized with a severe chill, resulting in marked pulmonary congestion with alarming symptoms, and, although he rallied very unexpectedly from the acute stage, it has been followed by such prostration as to make his recovery well-nigh impossible.

This case is certainly unique; medical literature, so far as I know, furnishing no parallel. Somewhat approximate instances may be found in Christison's work on Poisons, the maximum habituation reaching fifty years.

No less notable is the absence of the usual disastrous sequelæ of opium addiction. For this it is difficult fully to account. He is, undoubtedly, a physiological anomaly. His habits too, have been very methodical—among others, retiring at 5 P.M., and rising at 1 A.M.—and to his exactness in this and others must be largely attributed his five score and eleven, with such unusual freedom from physical ills. Much, also, has been due to the judicious care of his medical adviser in reducing his great consumption of opium to an amount sufficient for his actual need, and, with attention in other regards, thus obviating almost entirely the ordinary results of opiate excess. But, with *all* that can be advanced, the case stands alone and inexplicable.

I am indebted to Dr. Thos. C. Chalmers—for the last twenty-one years Capt. L.'s physician—whose courtesy I wish to acknowledge, for many of the facts in this paper.

J. B. Mattison, M.D.

Brooklyn, N. Y.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 1 to 7, 1877.

Jessop, S. S., Ass't Surgeon. Assigned to duty at Edgefield, S. C. S. O. 64, Dept. of the South, April 5, 1877.

Azpell, Thos. F., Ass't Surgeon. Relieved from duty at Fort Columbus, N. Y. H. S. O. 69, A. G. O., April 2, 1877.

Moffatt, P., Ass't Surgeon. Assigned to duty at Fort Foote, Md. S. O. 74, Division of the Atlantic, April 3, 1877.

Turrill, H. S., Ass't Surgeon. Granted leave of absence for one month, with permission to leave limits of the Department and apply for an extension of three months. S. O. 60, Dept. of Texas, March 30, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending April 7, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
March 31.....	0	1	99	2	18	48	2
April 18.....	1	2.	93	7	33	38	2

College of Physicians and Surgeons. N. Y.—The *University Herald*, Syracuse, N. Y., charges the Faculty of this institution with graduating, at the last commencement, a student who is not twenty years of age, who studied medicine but two years, and who has not attended two full courses of lectures. The said graduate is charged with affixing "A.B." to his name without having received a diploma therefor. If the Faculty care to know the name of this enterprising gentleman we shall be happy to furnish it, with such facts as have come in our possession.

New York Academy of Medicine.—At a stated meeting of the New York Academy of Medicine, held April 5, 1877, Dr. George H. Butler and J. P. P. White were elected resident Fellows.

Dr. James R. Wood has been appointed consulting surgeon to the New York City Lunatic Asylum, Blackwell's Island, and New York City Asylum for the Insane, Ward's Island.

Best Time to Dress Fractures.—Prof. Yandell in a lecture to his class, answers the question as to the best time to dress a fracture, thus: "*The earliest possible moment after the bone is broken.*" This is common sense; and the idea that people, and often inexperienced doctors, have of removing the patient from the place of accident to his home or other point, before dressing the fracture, is fraught with great risk and injury to fractured limbs. Dress it on the very spot, even if you have to go miles in search of material to do it with.—*Southern Medical Record.*

Original Communications.

A NEW OSTEOCLAST, WITH REPORT OF CASES.

REMARKS MADE BEFORE THE N. Y. ACADEMY OF MEDICINE, APRIL 5, 1877,

By C. FAYETTE TAYLOR, M.D.

On the fourteenth day of February, 1866, while crowding forcibly but steadily upon the thigh of a patient for the purpose of correcting a serious deformity at the left hip-joint, I felt a sudden giving-way, and with a dull thud the limb dropped upon the operating-table. I had fractured the femur in its upper third. I immediately remarked to Dr. E. R. Peaslee, who was holding the pelvis, that I hailed the accident as a special good fortune. A modified Davis-extension splint, with hip-band and two perineal straps, was at once applied, and just sufficient extension made to prevent any overlapping of the fractured ends of the bone. Rotation of the leg was prevented by a piece of wood attached to the bottom of the splint. A piece of gutta-percha was moulded to the under side of the thigh in such manner as to prevent the distal and proximal ends of the bone, at the point of fracture, from being separated. No change whatever was made in the dressing during the next six weeks. At the end of that time, although a firm callus had rapidly formed, it was advised that the patient continue to use crutches for several weeks longer. The patient immediately sailed for Europe, and while on shipboard attempted to use the limb, but found that it was not quite firm at the seat of fracture. On reaching Paris, M. Nélaton was consulted, who discovered motion, and had constructed a suitable apparatus, which the patient wore two months. Soon, however, the limb was used with perfect facility, and with an almost complete correction of the deformity. Subsequent examination proved that there was motion at the hip-joint. Since the occurrence of the events related above, I have been looking for an opportunity to test my conviction that in fracture of the femur we have the simplest and most practical means for ameliorating the condition often presented when disease of the hip-joint has terminated with the head of the bone fixed in the socket and the femur in a distorted and irreducible position.

As opposed to section, which is producing a compound fracture, it seemed to me there were evident and decided advantages in favor of a simple fracture. The one thing lacking was some simple and reliable means for producing fracture *at the elected point.* I have never doubted, since the experience in the case related, that with a suitable osteoclast, and sufficient experience to test its merits, fracture will take the place of section of the bone, and be employed in cases in which there is such depraved constitution as renders section completely out of the question. I have suggested the operation in many cases, but with only the accidental experience I had had in a single instance could not urge it with sufficient confidence to induce any one to submit to the procedure. At last a case presented itself, in which the patient was so utterly helpless, and his condition so desperate, I had but little difficulty in persuading him that his only hope was in the operation which I am advocating.

Oscar Field, æt. sixteen years, in December, 1873, presented himself in the following condition: His right thigh was abducted to the fullest possible extent, flexed at a right angle with the pelvis, and fixed in that position by a firm anchylosis, which had occurred at the hip-joint as the result of morbus coxarius. (See Fig. 1.) There was caries of the left tarsus, with

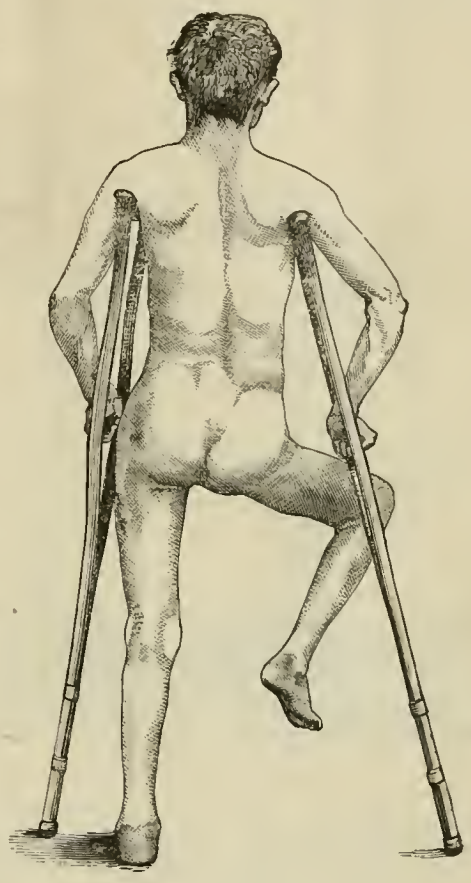

Fig. 1.

several sinuses presenting a sluggish appearance, and marked cachexia. He had been sitting in a chair most of the time for two years, because of his utter inability to move or to be moved. On account of shortening of the hamstring muscles the leg was flexed to a right angle with the thigh, and there was but trifling motion at the knee-joint. The case, although unpromising, was, as I thought, not without hope. The first step in the treatment was to give the patient a little exercise, and afford him an opportunity to breathe the fresh air. Suitable apparatus was adjusted and from the trifling exercise he was enabled to take and the fresh air his general condition rapidly improved. At the end of about one year the last tarsal sinus had healed, but there was anchylosis between all the tarsal bones. Although improved in health, and having the ability to support himself upon one foot, yet as he could not balance upon it, owing to the want of motion in that ankle, he was practically as helpless as before. I urged the operation of fracturing of the femur as being one especially applicable to his case. I regarded the case as too strumous to make section justifiable if a simpler method of treatment could be found. The plan was accepted by the patient and endorsed by Dr. George A. Peters, who rendered valuable assistance, and accepted a share of the responsibility. The osteoclast as used is now presented (see Fig. 2), and consists of a U-shaped bar of iron (A B), three-fourths

of an inch square, on one ramus of which is placed a hard-rubber pad one-and-three-fourths inches wide, and curved to fit the rounded surface of the thigh. On the side opposite to this pad a V-shaped bar of iron (C) is fitted under the ramus, and controlled by two screws (D D), which pass through the ramus itself.

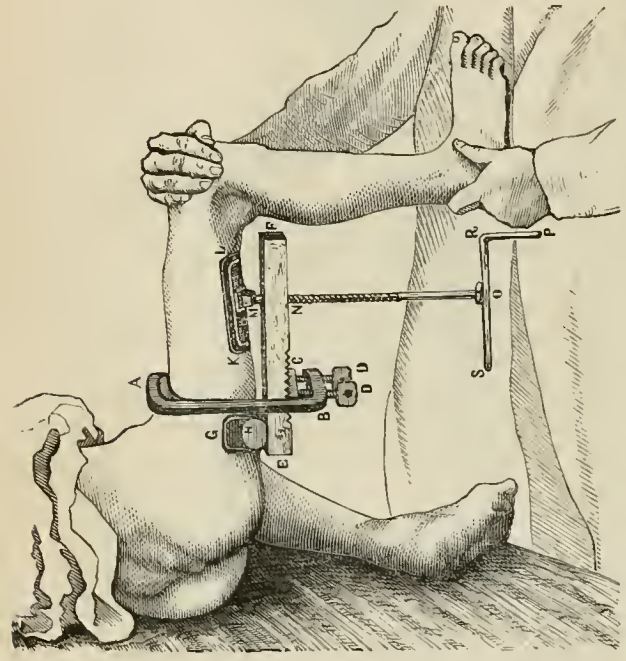

FIG. 2.

A strong piece of hard wood is used for the fracturing lever (E F). At the lower end of the lever a pad (G), similar to the one just described, is firmly fastened, and is intended to rest over the trochanter major. The pad resting over the trochanter major, the body of the lever passes under the V-shaped piece, extends along the femur and parallel to it, and has fitted into it at the distal extremity female portions of a screw, through which a threaded rod works as it rests in a socket (M), upon the outer side of a free pad (K L), also rubber-lined, that is placed in contact with the distal extremity of the femur. The threaded rod terminates in a crank-like handle, S R, P. The instrument was applied diagonally pointing towards the left shoulder. By this expedient the important vessels and the larger portion of the muscles of the thigh were excluded from the possibility of receiving injurious pressure. The regulating screws (D D) were then adjusted until the three pads, A, K L, and G, sustained a uniform and firm pressure, and by a few rapid turns of the handle S R, P, the distal pad, K L, was driven forcibly against the thigh, when, with a sharp report, the fracture was produced at the point selected, namely, beneath the pad at A. The selected point was as close to the pelvis as the apparatus could be adjusted; in reality in the upper third of the femur. Considerable force was required to produce the fracture, but it is a remarkable fact that no perceptible impression was made upon the soft parts, evidenced either by discoloration or tenderness upon pressure over the parts where the pads were in contact with the surface of the thigh. I also find that Rizzoli states that no bruising of the soft parts occurred in his cases. In consideration of the acuteness of the angle at which it would be necessary to place the ends of the fractured bone, and the increased liability, as I apprehended, of shortening, I had a splint constructed which was intended to meet as many of the apprehended difficulties as possible. It provided for securing the exact position desired, and also provided against displacement by muscular action, an extension splint being part of the apparatus. The splint was applied, and, with the exception of that caused by the anæsthetic, no pain or distress was experienced during the entire period of his confinement. Although the patient ate and slept well, and had no unfavorable symptoms, it was found that union did not take place rapidly, for on the fiftieth day motion was readily recognized at the seat of fracture. It was then de

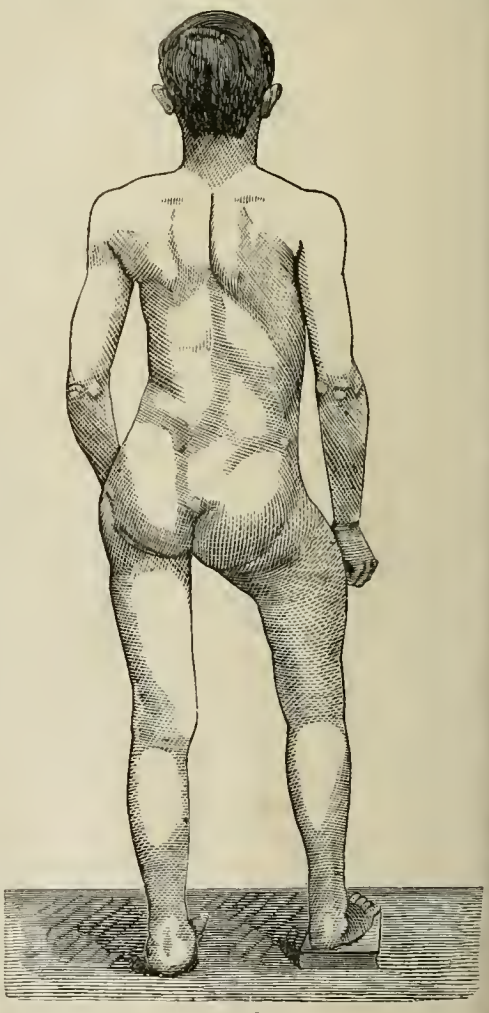

FIG. 3.

cided to remove the splint and apply a plaster-of Paris dressing in order to give the patient more free dom, in the hope that moving about, even though bu slightly, might facilitate union.

Having been suddenly attacked with a severe illnes on the morning appointed for the substitution of th plaster-of-Paris for the original dressing, the chang was most skilfully made by Dr. Peters, assisted b Drs. McBurney and Chrystie. After the applicatio of the plaster dressing, which extended to the wais

and closely invested the pelvis, the patient was able to sit up, and when, on the first of March, 1876, the bandage was opened, and the fracture examined, it was found that considerable progress had been made towards complete reparation. Although there was motion at the point of fracture, the ends of the bone were held sufficiently firm in position to prevent any displacement, and the patient was permitted to return to his home in the country, still wearing the bandage. He returned for examination on the first of April, when it was found that a good callus had been formed, and there was some doubt whether there was any motion at the point of fracture. It was decided, however, after careful examination, that very slight motion still remained. The dressing was readjusted, and on the 23d of May there was no longer any doubt regarding the solidity of the union, and the bandage was removed (see Fig. 3).

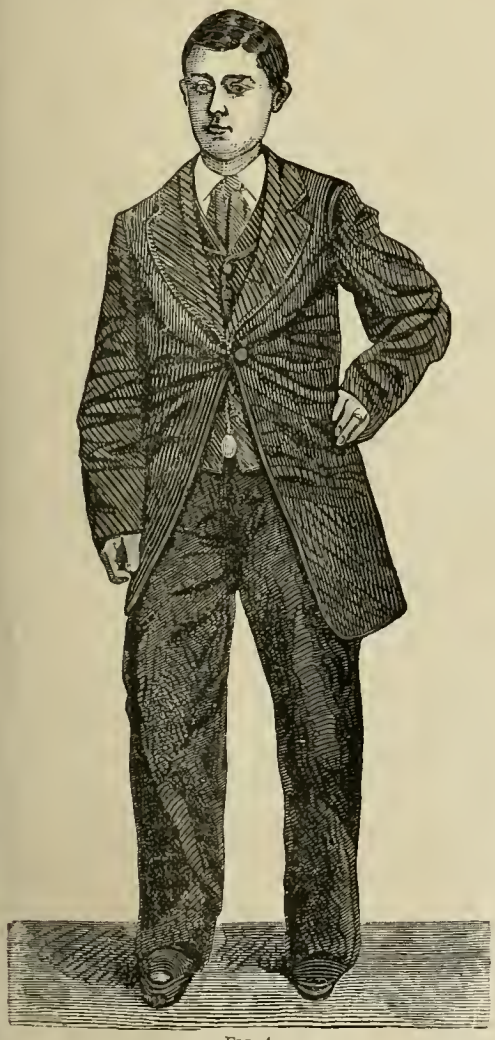

FIG. 4.

Six years had passed since the patient had been able to walk, and, as had been apprehended, he was still unable to walk, because of the atrophy of the muscles and contraction that had taken place. These were gradually overcome by appropriate exercise, and he is now able to walk with perfect ease (see Fig. 4). As will be noted it required something like five months for solid union of the bone to take place, but, considering the highly strumous condition of the patient, this delay in reparative process ought to be an argument in favor of fracture as a means for correcting excessive deformity with true anchylosis, when compared with the probable result after section in the same case. Be the advantages with the one or the other operation in this class of cases, so far as exemption from dangerous consequences may be concerned, there can be but one conclusion, I believe, in comparing such a result as was obtained in this case with any artificial joint which was ever formed. Except free motion in a sound joint, there cannot be so good a result as anchylosis when the femur is in a selected position. Such selected position would be with the thigh slightly flexed upon the pelvis, and the limb parallel with the longitudinal axis of the body. In such a position the centre of gravity is placed directly over the base, with but a slight and scarcely observable motion of the trunk in walking. Altogether there is but a slight disability in such a case. There is, of course, increased motion in the lumbar vertebræ, but it is divided about equally between the act of lifting and straightening the limb, consequently is not conspicuous, and the motion for both steps takes place in the unaffected hip-joint.

The length of time required to secure perfect union in these cases should not be surprising. Unquestionably, when an angle is made at the point of fracture, there cannot be so large surfaces in contact as when the fractured ends of the bone are kept in contact by overlapping or direct apposition, as in oblique and transverse fractures. Besides, there is a much larger space to be filled with osseous material between the portions of the bone which are not in contact, so that it would seem reasonable to expect a considerable prolongation of the time usually required to repair an ordinary fracture which is set in a straight line. I do not perceive, however, that this fact alone should be a serious objection to the substitution of fracture for section as a means for correcting a serious and irreducible distortion at the hip-joint, especially if it is found, as in the case reported, that the ultimate reparation is as perfect as obtained in ordinary fractures.

With regard to the kind of splint to be used in such a case, my first impression was, after the plaster-of-Paris dressing had been applied, and apparently with so much benefit, that it might as well have been used immediately after the fracture had been produced; but having since seen several serious results in cases in which plaster-of-Paris has been employed in the treatment of ordinary fractures, I shall again begin the treatment after the fracture with an apparatus similar to the one before employed. Indeed, I do not now see how the management of the case related could be well improved, and therefore shall go over the same ground in the treatment of subsequent cases until experience has indicated that some change should be made. I believe that the results in the cases reported recommend fracture of the bone in preference to section as a means for correcting deformity, especially as the osteoclast so perfectly fulfils the purpose for which it was designed—namely, *to enable the surgeon to produce a transverse fracture at any selected point with ease, certainty, and safety from after-complications.*

There is nothing new in the idea of refracturing bones for the purpose of correcting deformity.

Without going over the literature of the subject, I will call attention to the labors of Rizzoli, an Italian surgeon, who had his attention first called to the use of an osteoclast in 1845. His object was to secure an

oblique fracture, and he constructed an osteoclast with that object in view. It is evident that with an oblique fracture, lapping of the fractured ends can be much more satisfactorily accomplished than when the fracture is transverse. On the other hand, my object has been to produce a transverse fracture for the purpose of bringing the fractured ends together at a more or less obtuse angle, thus completely changing the direction of the limb. Consequently, the means for producing the fracture should be somewhat different. Each instrument seems to answer the purpose for which it was devised, but one could not be substituted for the other, especially as Rizzoli's fractures were made in the middle of the femur, while my special desire, besides securing a transverse fracture, has been that it should be at a point nearest possible to the hip-joint. Rizzoli's conclusions are very important. He says there was no bruising of the soft parts by the osteoclast. As he generally used it without anæsthetics, his testimony should be conclusive that the fracture was produced without pain. In no case does he report any constitutional disturbance in consequence of the operation. It must be remembered, however, that Rizzoli always fractured the sound limb. He relates several cases of shortening in consequence of luxation of the femur, but as in shortening from fracture it was the unaffected thigh which was subjected to the osteoclast's embrace. He gives no case at all similar to those which I have related—and so far as I have been able to discover, these are the first instances in which the same or like procedure has been adopted —namely, fracturing the femur at its upper third, and making a small but unimportant deformity at that portion of the bone for the purpose of overcoming the malposition of the whole limb, in connection with anchylosis at the hip-joint.

VASELINE AND SALICYLIC ACID IN MEDICINE.

By HENRY A. DuBOIS, M.D.,

SAN RAFAEL, CAL.

In two former brief papers in this journal I have noticed some of the uses of vaseline and salicylic acid, alone or combined, as an ointment in the treatment of wounds and in obstetrics; in the present I will make some suggestions as to their use in another class of cases. Ulcerations of the septum of the nose are often as much the cause of persistent discharge from the nostrils as erosions of the os uteri are the cause of leucorrhœa. I have seen many cases that, under the care of specialists, have, for the time being, been cured, only to break out afresh. In truth, these cases seem to require general as well as local treatment. Looked at from one standpoint, they are but a sign of a general constitutional state. The treatment pursued by most specialists is tedious, requiring the attendance of the patient several times a week for several months before the ulcerations are completely healed and the discharge stopped.

Many of the cases that come to the general practitioner would be satisfied if they could get a partial cure, *i. e.*, be able to control the discharge from the nostrils to such an extent as not to be seriously inconvenienced thereby. It is a question in some of these cases as to the advisability of stopping suddenly a long-continued discharge. The treatment that I have found most convenient for the patient, and at the same time very effective locally, has been the use, night and morning, of vaseline with five grains of salicylic acid added to the ounce. This is introduced into the affected nostril by a camel's-hair pencil, or better still by a little cotton-wool wound around the end of a stick. At the same time I give $\frac{1}{100}$ to $\frac{1}{50}$ grain of corrosive sublimate with some preparation of iron twice daily. I frequently find that after this treatment has been continued for one to two months a complete cure is effected, while in other cases the discharge has so far ceased after a few weeks that the patient, being satisfied, leaves off the treatment. In cases of scrofulous enlargements of the glands of the neck, vaseline, with from ten to twenty grains of iodine and the same quantity of iodide of potassium, makes an excellent ointment. In hemorrhoids vaseline with five to ten gtt. of tar to the ounce, makes a very soothing application to the inflamed piles. Ten to twenty grains of subnitrate of bismuth may be substituted in some cases for the tar, with advantage; of course the portal circulation must at the same time be kept unobstructed. In granular lids, vaseline alone introduced into the eye soothes the parts, and has given good results in my hands. If desired, alum, sulphate of zinc, or, what I prefer, liq. ferri persulphatis, can be added. I believe that vaseline containing one-half to three grains of salicylic acid will be found useful in purulent ophthalmia. Indeed, the use of these agents in diseases of the eye has received, so far, little attention. In otorrhœa in scrofulous children, the vaseline, with varying proportions of salicylic acid, checks the discharge and relieves all excoriations caused by it. In granular sore throat the ointment, if applied morning and night with a probang, answers a good purpose, and I may add that in diphtheria I prefer to apply the acid with vasoline rather than in solution. Vaseline in many skin eruptions soothes and protects from the air. Recently I have had charge of a case of small-pox in a child, in which I kept the ointment constantly applied to the whole body, with the effect of apparently entirely relieving the itching; for the child, though of a very irritable disposition, did not break a single pustule on the face by scratching, and recovered without a pit. I should also mention that the secondary fever was almost absent. I do not think I am going too far in saying, that a daily application of this ointment, in cases of small-pox, over the whole body, will not only greatly conduce to the comfort of the patient, but will do much towards reducing the fever of maturation. In cases of poison-oak, I find it to give more relief than any other topical application, and, in connection with vapor or hot-air baths, to effect speedy cures. In cases of burns it answers much better than caron oil. The ointment stimulates the granulations, and by the addition of astringents, will furnish a good dressing throughout all of the stages of an extensive burn. It answers well as a dressing for chancroids. In cases of baldness or loss of hair after fevers, vaseline with twenty grains of quinine and thirty gtt. of tincture cantharides makes an excellent pomatum. It takes, in many cases, the place of liniments, and can be combined with quite a variety of active medicines. It may be used instead of cod-liver oil as an external application in diseases of malassimilation, and will not be found disgusting like the former, while it seems to have nearly if not quite as good an effect on the disease. I have used it internally in phthisis, chronic bronchitis, and whooping-cough, and with generally satisfactory results; but the consideration of its action when used internally must be postponed until my experience is more extensive than at present.

I will conclude by mentioning a number of little uses in which vaseline will be found to contribute to

he comfort of the patient and to the convenience of he physician. It makes a good dressing for blisters, nd a more soothing one than any other with which I am acquainted. Added to poultices, it keeps them noist, and, if a little of the acid is added, sweet for a length of time. It is a good vehicle for active nedicines when used by the rectum. The vaseline should be slightly warmed, and the nozzle of the syringe large. If introduced in the melted state into he urethra, in cases of difficult strictures, it enables he catheter to enter with great facility. It answers better than mercurial ointment to prevent rust on nstruments. I have no experience in its use in gonorrhœa, but I think there can be little doubt that with ts soothing and penetrating qualities, it would make a good agent for astringents, and with the salicylic cid would tend to abate inflammation and check the lischarge. The ointment alone or with tannic acid is a valuable application to bed-sores. I may add that n blistered feet, and for the sore backs of horses, it nswers well. I have thus briefly called attention to hese agents. No doubt most physicians have used hem in many cases; but so far as I know all of the aluable properties of vaseline, alone or combined with alicylic acid and with other active agents, are not yet ully appreciated by the profession generally, and this nust be my excuse for mentioning many of the uses hat these agents may be put to.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

CASES OF SYPHILIS—PREMATURE AGE—INTERESTING HISTORY—DIAGNOSTIC POINTS BETWEEN SYPHILITIC TUBERCLES AND LUPUS—TEST BY TREATMENT—CURIOUS FACT REGARDING IODIDE OF POTASSIUM—INFANTILE SYPHILIS—APPARENT ABSENCE OF SYPHILIS IN THE MOTHER—CONSIDERATIONS ON THE CASES.

Three cases of syphilitic disease were presented, each of which exhibited peculiarities worthy of note. The first case was a very good illustration of *premature age*, produced by syphilis, and was regarded as rather haracteristic of the malady. The patient looked to be s much as sixty years of age, but she distinctly stated hat she was no older than forty-five years. Sixteen ears ago she first had an eruption upon her nose, nd cicatrices were remaining. Two years ago little pots were occasionally seen upon the chin; but during the last eight months the disease had appeared pon the chin, had existed continually, and had gradally extended until it involved all the skin of the hin and lower lip.

There was no eruption upon any other part of the ody, but she had suffered severely from rheumatism, oth of the joints and shafts of the bones. It was hought not improbable but that she may have had rdinary articular rheumatism, together with a syphitic rheumatism affecting the shafts of the bones. t was believed to be rather common for gout and yphilis to occur in the same individual, and for each isease to present its peculiar characteristics at the ame time. The same might be true of rheumatism.

With regard to the causation, it was found that ere was a history of four still-births. That fact had an important bearing upon the existence of specific disease in the woman. Her husband, she said, died of heart disease, and in his last sickness had "seven doctors to him," which was a serious complication. He also had a sore upon his foot, which lasted for two years, a fact which, taken in connection with the statement that he was the father of four children who died in utero or at birth, made the presumption fair that the chronic sore upon his foot was an ulcerating syphilide.

It was suggested that we had to deal with another disease rather than syphilis, for the eruption presented some of the features of lupus. Why should it not be regarded as a case of lupus? All the elements of the history had a certain air of uncertainty about them, although there was a fair presumption regarding the character of the disease. To the eye which was at all familiar with the appearance of a tubercular syphilide, there were certain characteristics by which it could be readily distinguished from lupus. In the first place, there was considerable infiltration of the skin; the lips and chin were very much swollen, and more so than ever found in lupus. Furthermore, it was observed that the border of the eruption was pretty distinctly defined by a series of tubercles, which presented a color quite characteristic of syphilis—namely, a coppery hue. The color was regarded as an important point in diagnosis. Again, they were opaque, and did not have the translucency which was characteristic of lupoid tissue. The extensive infiltration of the skin and subcutaneous tissue, the color and consistency of the tubercles, and the characteristic cicatrices, all pointed to syphilitic lesion, and that character was substantiated by the quite clear history.

CASE II.—A female patient was seen, upon whose face an eruption, for the first time, broke out about a year ago. She was forty-seven years of age; had never borne a living child, but had had one miscarriage at three months. She had had an eruption upon the lips and upon the eyelid for nearly two years, but that of which she especially complained was a group of nodules upon the upper lip, some of which were warty in appearance. There were also a few upon the nose, and with those was associated a hypertrophied condition of the sebaceous glands—many of them being filled with plugs of sebaceous matter. She had had an eruption upon the body, the nature of which had not been determined. No scars had been left, and she had never had pains in the shafts of the bones.

Although there was nothing beyond the fact of having had a miscarriage to point to syphilis, yet it was regarded as quite probable, from the appearance of the tubercles upon the lips, that what we had to deal with was a specific affection. The distinguishing features between such an appearance as this and lupus have already been pointed out; but it was then added that in cases where the evidence of syphilis was incomplete we had a very delicate test in the treatment. For one might be sure, if the lesion was specific in character, that the mixed treatment would produce a marked effect upon it within two weeks. The mixed treatment consists of the administration of mercury, combined with iodide of potassium. Both patients were placed upon the following mixture:

℞. Hydrarg. biniodid.....gr. i.
Potass. iodid.....℥ iv.
Syr. aurant.,
Aquæ.....āā ℥ ij.
M.
S. Teaspoonful three times a day.

It was noted as being a curious fact that intoler-

ance of iodide of potassium was very rare in a syphilitic patient, while in persons in health it was not very uncommon. In health, unpleasant effects were frequently produced by the use of very small quantities of the remedy, but it only occasionally happened that it became necessary to discontinue its use in the treatment of syphilis; for the disease seemed to give the system a tolerance of the drug.

Case III. was an instance of infantile syphilis, and presented a good illustration of the efficacy of treatment. When about two years old the child exhibited an ulcerating tubercular syphilide upon the body, syphilitic periosteal inflammation of the tibia upon both legs, swelling of the joints, and at the same time cachexia. It began to be ill when about three months old. It was stated to be quite common for children to be born apparently healthy, skin fair, etc., and not present any sign of syphilis until perhaps they were six weeks or three months old. It was common enough, however, for the symptoms of the disease to be present at birth. As a rule, the lesions of infantile syphilis occur from one to three months after birth. The case was interesting in another point of view. There is considerable difference of opinion among syphilographers as to whether inherited syphilis comes from the mother or from the father. Some maintain that the disease always comes from the mother, and in no case directly from the father; in other words, that it is impossible for a child to be born syphilitic without the mother having first had the disease; that, if the husband is responsible for it, he is responsible for first infecting his wife, and that then the wife infects the child. Others maintain that the father may infect the child directly and without infecting the mother. It was believed that those who maintain that the mother must be syphilitic before she can give birth to a child affected by the same disease, certainly have the advantage. For the instances in which the father affected the child without affecting the mother were believed to be exceedingly rare, and it was possible that they were even problematical. Here was a mother who had never presented any evidence of constitutional syphilis, and yet she had given birth to a child that was manifestly syphilitic. It might be explained as an instance of paternal syphilis, but the advocates of the other theory would say that the fact the mother had not presented evidence of syphilis was no argument against the statement that she had syphilis before she gave birth to her child. For many persons were ignorant of the fact that they were syphilitic until some late lesion of the disease appeared. This was said to be true of women much more frequently than of men; for they were frequently syphilitic without ever having had any knowledge of suffering from a primary or even a secondary lesion. The primary lesion had been so trifling that it had passed away without recognition, and the woman remained healthy, comparatively, and for a long time innocent of all knowledge of the fact that she was the subject of syphilitic disease; and she might bear a child which was syphilitic without herself ever presenting special evidence that she was the subject of the same malady. It was believed that the instances, in which it had been said that the children inherited syphilis from the father, were those in which the mother had the disease, but it went unrecognized. The visiting physician was not inclined to believe the theory which claimed that the sperm of the male was capable of extending syphilitic diseases to the children; the mother must first be syphilitic and must communicate the disease to the child if it was the subject of hereditary syphilis. Here the discussion terminated.

CATARRHAL LARYNGITIS, OR FALSE CROUP.

To break up the tendency to continuation after the child had had an attack, the following was recommended:

℞ Calomel.....gr. i.
Quiniæ sulph.....gr. i.
M.

To be given three times a day until six grains of calomel had been administered.

TREATMENT OF ACNE—FLUSHING OF THE FACE, WITH ENLARGEMENT OF THE SEBACEOUS FOLLICLES—THICKENING OF THE SKIN.

In all cases it was maintained there was a common factor, namely, hyperæmia of the skin. It was important to bear that fact in mind, as it was one of the conditions which should receive special attention in local treatment, and required stimulating applications—something which would produce an active where there existed a passive hyperæmia—something which caused contraction of the blood-vessels. That might be accomplished by bathing the face in water as hot as could be borne. Hot and cold water might be alternated, as in the stimulating plan of treatment for bed sores recommended by Brown-Séquard. The same principle was at the foundation of all the lotions and ointments commonly employed, such as the alkaline lotions and the iodide of sulphur and mercurial ointments.

BLOCKLEY ALMS-HOUSE HOSPITAL,

PHILADELPHIA.

Notes in Practice and Peculiarities of Treatment.

EXTENSION IN FRACTURES BELOW THE KNEE.

Dr. S. W. Gross has lately introduced a new method of applying extension in fractures of the tibia and fibula. The foot is well bandaged and covered with turns of a roller. A shingle is then cut to fit the shape of the sole and fastened to the foot by adhesive strips. The weight is attached to a knotted cord passing through the centre of this foot-piece. Pott's fracture is treated in this way, after first bringing the inverted foot into its normal position by a broad adhesive strip running from the inside of and across the middle of the sole, well up on the outside of the leg.

GONORRHŒA.

Large doses of cubebs are used in this disease with most wonderful results. So astonishingly rapid and certain are the cures following the prescribed doses of this drug that it has entirely superseded all other modes of treatment. Though of especial value in the acute stage, it has been given with great success in all stages of gonorrhœa. The dose is one tablespoonful four times a day in half a tumblerful of water. It generally cures completely in from three to six days. Chronic cases of course require a longer continuance of the treatment. The above-mentioned doses should be pushed until the bowels are moved, or sickness at the stomach is produced; then the treatment should be stopped, or the dose lessened. Cubebs can be employed without any local treatment, and should be administered only in uncomplicated cases.

FRACTURE OF THE CLAVICLE.

The arm is flexed and bound to the body. A silicate of soda dressing is then applied to retain it in position. A pad in the axilla may be necessary in lean subjects. This treatment is much simpler than a

Fox, Velpeau, or Desseau bandage, and is attended with most favorable results.

INTRACAPSULAR FRACTURES.

Instead of extension by adhesive strips and the use of sand-bags to keep the fractured limb in position, Dr. Gross has instituted a new treatment. By pillows under the knee the leg is put in the double inclined plane. The adhesive strips are then attached on both sides from the seat of fracture to the knee, and run from there straight out to a pulley and weight at the foot of the bed. This method has been found to act very successfully, and greatly adds to the comfort of the patient.

STRICTURES.

Dr. Brinton treats strictures by gradual dilatation—never carrying the dilatation to more than 10; 18 on the scale of Thompson's sound. He uses filiform bougies and Gouley's instrument altogether in small strictures. It is very often found advantageous to retain a soft instrument in the stricture.

Dr. Gross diagnoses position and size of stricture by the bulbous exploring bougie. He does not hesitate to use the urethrotome, provided the man's condition is good and the kidneys normal.

TRANSFUSION.

Five of the eight cases of transfusion performed lately at this hospital have succeeded. In one case, a very low stage of puerperal fever, the pulse was reduced from 160 to 120 per minute in a short time. From ten to twelve ounces of defibrinated blood are generally injected.

CHRONIC DIARRHŒA AND DYSENTERY.

Dr. William Pepper's use of the Simon gravity injection has been introduced here with very excellent results. The strength of the injection used has been as high as 15 gr. of nitrate of silver to the quart of water.

PNEUMONIA.

When the disease is uncomplicated, and the subject plethoric, from eight to twenty ounces of blood are removed by wet cups.

ACUTE RHEUMATISM.

Salicylic acid is the victorious cure. Ten grains are given every three hours, and followed in two or three days by the alkalies.

LUMBAGO.

The spine is rubbed with ice and atropia, and morphia used hypodermically.

PENNSYLVANIA HOSPITAL.

Dr. Hewson treats all fractures of the lower extremities with Smith's anterior splint. Dr. Morton uses Malgaigne's hooks altogether for fractured patellæ. Dr. Hutchinson uses the following modes of treatment: Acute rheumatism is treated with ten-grain doses of salicylic acid every two hours until six doses have been given; the treatment is then intermitted till the following morning. The urine shows the presence of the acid. In mild cases of typhoid fever, ½ gr. of quinia and 40 ℥ of muriatic acid are given daily. The body is sponged with cold water. In the second week 10 ℥ of turpentine are given every two or three hours in mucilage, until the tongue grows moist. Chorea is treated in 3 ℥ doses of Fowler's solution, increased 1 ℥ each day, until a point of tolerance is reached. The ophthalmoscope has frequently shown retinal changes in renal diseases. In one case it decisively diagnoses a contracted kidney. Two per cent. injections of carbolic acid are used in paracentesis.

Progress of Medical Science.

RUPTURE OF THE VAGINA DURING COITUS.—A woman of 60, who had been bleeding copiously from the vagina, was recently admitted into the Montreal General Hospital. Her husband, 70 years of age, returning home unexpectedly after an absence of nine years, insisted on having connection with her. She yielded with some reluctance, and the sexual act was attended with great pain, and followed by a severe hemorrhage. Vaginal examination showed that there was a rent about an inch long just behind the cervix in the upper part of the vagina. No further unfavorable symptoms supervened, and the patient left the hospital a few days later.—*Can. Med. and Surg. Jour.*, March, 1877.

GOUT AND PALMERSTON PILLS.—Dr. Sorel thus records his own symptoms and the treatment that he has successfully adopted. With a hereditary tendency to gout, he became such a sufferer at forty that six years later he was obliged to give up the practice of his profession. After a series of attacks, in which all his joints in turn were affected, he began the use of the extract of digitalis and the sulphate of quinine. Under these remedies the attacks became less frequent, so that after two years he had but four visitations in the year. Thinking, however, to obviate these entirely, he commenced the use of the pills from two to four weeks before the period at which they were to be expected. At the same time he took active exercise in walking, gardening, hunting, taking daily a little of some diuretic, eating sparingly, taking no spirits, and now his health is excellent, and since 1861 he has had no further illness. As a prophylactic he takes his pills—Palmerston—for ten days every three months. —*Gaz. des Hôpitaux*, 23, 1877.

THE DIAGNOSIS OF TUMORS OF THE CEREBELLUM.—Dr. Adolph Ferber deduces the following conclusions from an analysis of thirty-four cases of tumor of the cerebellum, two observed by himself and thirty-two collected from other writers. The characteristic symptoms of tumors of the cerebellum are: 1. Lesions of co-ordination, as expressed by feebleness of movement, unsteady gait, and dizziness. 2. The absence of true motor and sensory paralyses. 3. Occipital pains and vomiting. The diagnosis is supported by the occurrence of difficulty in speaking and swallowing, and by demonstrable ophthalmoscopic lesions. He defines the word co-ordination to be "the harmonious action of several muscles necessary for the execution of a definite purposed movement, concerning alike their number, co-operation, and antagonism, and also the time and the strength of their innervation." He regards the feebleness or slowness of movements mentioned above as an early symptom of disturbance of co-ordination, the nervous impulse not being properly carried to all the participating muscles. He maintains that actual paralyses do not belong to cerebellar tumors. The differential diagnosis is to be made from chronic softening and abscess of the brain.—*F. Neelsen's Review in Schmidt's Jahrb.*, 172, iii., 1876.

DIAPHANOSCOPY IN THE EXAMINATION OF THE PELVIC ORGANS OF THE FEMALE.—Dr. Justus Schramm has devised an apparatus to be introduced into the vagina so as to facilitate the examination of the pelvic organs from their translucency, as in the familiar case of hydrocele. It consists of a double glass tube, the interior containing strips of platinum, which can

be heated to incandescence by wires, connecting with a battery, which pass through the handle. Water circulates in the space between the two tubes, being brought in by one rubber tube, and carried off by another. When this is introduced into the vagina and the connection made with the battery, the hypogastrium is said to shine like a red paper lantern, the internal sexual organs being outlined like silhouettes upon the uniformly red abdominal wall. Luzarewitsch claims to have made out various pathological conditions by the shading of the colors, but Schramm could not verify these results, though he thinks the plan has some diagnostic value.—*Deutsche Ztschr. f. pr. Med.*, 32, 1876.—*Schmidt's Jahrb.*, 172, iii., 1876.

Chronic Inflammation of the Knee-Joint cured by Injection of Iodine.—Prof. Weinlechner reports the case of a coachman of thirty-three, suffering from inflammation of three months' standing of the left knee-joint. This knee had been injured by a fall two years before. There was swelling, elevation of the patella, and distinct fluctuation. Treatment by cold and subsequently painting with iodine did not cure it, and on June 23d there was distinct crepitation, and vegetations could be felt on the edge of the capsule of the joint. With a Dieulafoy's syringe two ounces of synovial fluid were first removed, and then a like quantity of equal parts of tinct. iodine and water with some iodide of potassium injected. About an ounce of this fluid was withdrawn after half an hour. The limb was put up in pasteboard splints, and ice compresses applied. There was soon full reaction, the temperature reaching 102° F. After the fourth day the inflammation and fever subsided, and when the dressings were removed on July 31st, the swelling had disappeared. By August 24th there was no more pain, the leg could be fully extended, and bent to a right angle.—*Bericht der k. k. Krankenanstalt Rudolph Stiftung*, 1875.

The Serrated Scoop for the Detachment of Sessile Uterine Fibroid.—Dr. T. Gaillard Thomas has devised a new instrument which he has successfully used to remove a fibroid tumor weighing seven and a half ounces. The patient had been suffering four years from profuse menorrhagia and metrorrhagia, and had been so much reduced in health and strength that she was generally confined to her chamber, and suffered from œdema of the feet, palpitation of the heart, and dyspnœa upon the slightest exertion. Examination showed that the growth was not attached along the anterior wall, but along the posterior to within one inch of the os internum. An operation being deemed advisable, the patient was placed in Sims's position, and his speculum was introduced; the lips of the cervix were then severed, and the tumor being exposed, vulsellum forceps were firmly fixed in the growth. The serrated scoop, shaped like the bowl of a spoon, and armed with short teeth along its edges, was then introduced, and with a sawing motion the detachment was readily made in a few minutes. This operation, by the ordinary methods, would have required half an hour at least. The patient since has done well.—*New York Med. Journal*, March, 1877.

Three Hundred Additional Cases of Ovariotomy.—Mr. Spencer Wells has furnished a table of the results he has obtained in three hundred cases, from his five hundredth to his eight hundredth. The mortality in the fifth series of one hundred cases was twenty-eight; in the sixth and seventh, twenty-four. He stated that while puncture and drainage, with or without antiseptic injections, were sometimes called for after operations, it did not follow that preparation should be made for these procedures at the time of the operation. Of these three hundred cases he only made provision for drainage in eight, and in only eleven other cases did fluid afterwards escape by opening of some other portion of the wound, or by puncture of the vagina. In some few of the fatal cases he thought either primary or secondary drainage might have been useful; but it should not be a general practice in ovariotomy, but only be reserved for the exceptional cases where collections of blood or serum might be expected. Of the last twenty-seven cases, in the commencement of his eighth series, none had died. He had thought seriously of trying this hundred cases with every antiseptic precaution, and if he had done so, the conclusions might, from present indications, have been regarded as startling.—*Br. Med. Journal*, March 3, 1877.

The Lesions of Pertussis.—At a recent meeting of the *Académie de Médecine*, M. Gueneau de Mussy presented some specimens removed from cases of whooping-cough by M. Parinaud. They consisted of the tracheo-bronchial glands, which were enlarged and compressed, the pneumogastrics and their laryngeal branches. He thought these specimens confirmed his theory that the special form of the cough in pertussis is due to the compression of these nerves by the glands. This theory explains the fact that the spasmodic cough does not occur at the outbreak of the affection, and also the fact that all diseases which are attended by tumefaction of the bronchial glands are characterized by a cough similar to that of pertussis. The reason why this anatomical lesion has not been more frequently discovered is that it has not been looked for. M. de Mussy added that he regards pertussis as a veritable eruptive fever of the variety he has termed enanthematic, and that its contagious power is similar to that of other affections belonging to this class.—*Journal de Méd. et de Chir.*, Feb., 1877.

Prevention of Epileptic Fits.—Prof. Nothnagel, of Jena, reports the case of a woman who has suffered from epilepsia gravior for eighteen years, and who is able to ward off the attacks by swallowing a handful of common salt. The attacks are always preceded by an aura which lasts from fifteen to thirty minutes. It consists of a sensation of anxiety and oppression in the epigastrium, which ascends behind the sternum to the neck, causing a sighing and rapid respiration; the sensation then descends, and this may be repeated several times before it finally ascends to the head. When she finds this aura coming on the patient puts a handful of salt in her mouth and washes it down with some water; generally, as the burning sensation in the œsophagus, caused by the salt, descends, the anxiety disappears. Should she be unable, however, to obtain the salt at the moment, the attack is sure to follow. It is well known that, when the aura begins in one extremity, the attack can be occasionally warded off by the application of peripheral irritation, for instance by a ligature to the extremity. In this case it is very probable that the anatomical seat of the abnormal sensations that constitute the aura is in the vagus. Now, the act of swallowing the large quantity of common salt causes an energetic, sensible irritation, which affects the terminal branches of the vagus in the œsophagus and stomach, and hence we have a process which is entirely analogous to the peripheral aura and its cure by the application of a ligature.—*Allg. Med. Central-Zeitung*, Feb. 3, 1877.

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THE PROSPECTIVE PHARMACOPŒIA.

Having in our last stated Dr. Squibb's views, we will to-day consider Dr. H. C. Wood's objections. Dr. W. thinks if Dr. Squibb's plan is carried out that there is great danger of there being two Pharmacopœias, or if not, that the one of the Am. Med. Assoc. will probably fail to command respect, *i.e.*, will not be a good one. It is much better, he thinks, to stick to the old plan, and, in arriving at an opinion concerning the present method, we must judge it in a measure by its fruits. "When we look at American pharmacy, which has grown up under the shadow of this system, we find it peerless among nations;" says Dr. Wood. Upon this point we most humbly beg to differ. On the contrary, we believe it to be the most scandalous pharmacy in the civilized world. Not one druggist in ten has accurate weights or suitable balances; not one in ten is capable of determining the quality or purity of the drugs he dispenses; not three in ten will prepare the same prescription exactly alike, unless its ingredients be chemical salts. Some druggists prepare their tincture by Troy weight, others prepare theirs by Avoirdupois. When we turn to fluid extracts we find it much worse. Very few apothecaries prepare them at all. They buy them from the wholesale manufacturers, whose principal aims appear to be to undersell their rivals. Each one employs a different process, which he advocates as superior to those employed by others. What, then, is the inevitable result? Naturally very great lack of uniformity in the products of different houses. In fact, we can hardly find two fluid extracts of the same name that are exactly alike in their physical appearances or therapeutical properties. Take the whole line of pills, and the same criticism will apply. These are but a few of the abuses of American pharmacy, and if Dr. Wood points to them with pride as legitimate offsprings of the present pharmacopœial system—and to a certain extent they are—we can but wonder what the next ten or twenty years will bring forth under a continuance of the same system, and the fostering care of such an advocate. The Pharmacopœia "is certainly very good," says Dr. Wood, and yet there is not a line in it that will aid the druggist in distinguishing rhubarb from squills, either as regards the crude drugs, or their various preparations—not a line that will enable him to judge of the imperfections of an officinal product, in the preparation of which he may have inadvertently committed an error. These, moreover, are not the only defects of our Pharmacopœia. Others even more glaring might be mentioned, but space will not at present permit. We may be told, however, that these various omissions are fully compensated for in the Dispensatory. This we admit in a measure to be true. For years the Pharmacopœia has been kept a skeleton, in order that the flesh, blood, and brains of pharmacy could alone be found in the Dispensatory, that its owners might reap great profit thereby. We cannot wonder, then, that the heir-apparent to the Dispensatory desires that this state of affairs shall continue. Nor are we surprised by the disingenuous and sophistical arguments that he brings forward in support of his position.

Dr. Wood thinks that Dr. Squibb has maligned the last committee, and has intimated that "they betrayed their trust, and used their position to place the book where they knew it would not do the most good for the cause." * In this we think that Dr. Squibb is clearly in error, for the committee certainly did place the book where they knew it would "do the most good for the cause" of the Dispensatory.

Dr. Wood's last objection † to the new plan is the fear that Dr. Squibb may be chosen by the American Medical Association as its representative in the proposed Pharmacopœial Council. Upon the propriety or impropriety of such a choice, we do not care to offer any suggestions, believing that the individual members of the profession throughout the whole country are abundantly able to decide the question for themselves.

Dr. Wood concludes with the following quotation from Scripture: "Thou shalt not covet thy neighbor's goods." We fail to see the application of this to the matter in hand, unless it be that the Pharmacopœia as well as the Dispensatory belong to the Drs. Wood, and that vested interests should be left undisturbed, even if the profession and the people of this country are to suffer in consequence.

We trust, therefore, that when the representatives of the profession are in June next called upon to exercise their judgment in deciding this controversy—for such Dr. Wood has made it—that they will carefully consider not only the main question of measures, but

*Dr. Wood's pamphlet, page 5. † Op. cit., page 11.

the no less important ones of men and motives, and that before deciding they will carefully peruse the pamphlets of which we have given a brief résumé. Dr. Squibb's will be furnished by him upon application, and Dr. Wood's upon the receipt by him of a "three-cent stamp," the postage thereon being one cent.

MEDICAL PROVIDENT SYSTEM.

THE recent effort made in this city by the Public Health Association to initiate a provident medical dispensary system will attract a good deal of attention. Considering the great abuses of medical charity, which are so patent to all, it is a subject which must be approached with great caution. So long as it may tend to correct such abuses in our dispensary system the movement will be fraught with great good. To make it successful, however, it is necessary that all the officers of the dispensaries should unite upon some plan which shall enable them to draw the line between those who are real cases for charity and those who are able to pay a small sum.

The appointment of a committee by the Public Health Association looks in that direction; and although it is a matter of some doubt whether the object aimed at can be gained, we still hope that some reasonable plan may be developed. We confess, however, that we are not sanguine upon this point. There are too many selfish interests at stake to render any such arrangement possible. If all the medical men connected with our dispensaries would agree only to treat those patients who are really worthy, the remedy would be within reach; but there is such a desire to increase clinical facilities, to establish large dispensary classes, to minister to the clinical necessities of our colleges, that the fact of the patient being able to pay or not is of the smallest possible consideration. This is a subject which we have often alluded to, and which is one of the disgraceful elements connected with clinical teaching in this city. We repeat, if this medical provident system is calculated to correct these abuses, we shall give it our hearty endorsement. In England, where such provident medical system is said to be carried to more or less perfection, and where the membership amounts to more than one hundred thousand persons, the foundation of such success was laid in the dispensary system itself. In fact, the provident measure was an outgrowth from this. We believe that the limit of membership to these English associations is a family income not exceeding thirty-five shillings a week. We must consider, however, that the social relations of England are different from those which obtain in this country; that the division of classes is more distinct; that there is more chance for a line being drawn between those who are respectably poor and those who are able to pay a physician. Still, we believe the experiment is worthy of consideration, and certainly it will lose nothing by discussion. It may with truth be said that we have so far done very well with our poor without this provident medical system. We must also conclude that the respectable poor have been treated in a private way by physicians as pure cases of charity. We cannot imagine a physican who, because a patient is really poor, will not give his services. If, however, some society can be made to pay these fees to the physician, or secure to the struggling young practitioner a livelihood, well and good. But from the present stand-point of our knowledge of the abuses of medical charity, it must be regarded as almost Utopian.

We should like to see all the dispensaries made medical provident concerns, and believe that those patients who would be entitled to free services on account of extreme poverty would be a very inconsiderable number. But the question comes up, how can this reform be applied to our college clinics?

Reviews and Notices of Books.

AN ATLAS OF TOPOGRAPHICAL ANATOMY AFTER PLANE SECTIONS OF FROZEN BODIES. By WILHELM BRAUNE, Prof. of Anatomy in the University of Leipzig. Forty-six woodcuts in the text. Translated by EDWARD BELLAMY, F.R.C.S., Senior Assistant Surgeon to the Charing Cross Hospital, etc., etc. Philadelphia: Lindsay & Blakiston. 1877. Royal octavo, pp. 200.

THIS work contains thirty-one elegant photographic plates, which are reproduced on a smaller scale from the large atlas of the author, together with forty-one woodcuts. All of these represent sections from frozen bodies, and give the exact relation of the different organs to each other. Although the larger atlas supplied a want which had long been felt by both physician and surgeon, its necessarily high price placed it beyond the reach of many. In order to make it more widely available this more compact edition is presented.

The importance of an accurate knowledge of topographical anatomy can hardly be estimated. In general such knowledge is founded more on the ability to imagine the relations which different parts of the body hold to each other, than from any accurate idea which may be fixed in the mind. Our author endeavors by his methods of longitudinal and transverse sections to reduce the difficulties of the study to a minimum; to present, in fact, a complete view of all the parts concerned, nothing more and nothing less. In the words of the translator: "By means of the sections found in this atlas, the exact positions and relations of the structures which must be divided or avoided in the course of an operation are indicated, and the track of a bullet or punctured wound suggested. At the same time they afford an absolutely correct representation of the intimate relations of the viscera, of the thorax, and abdomen."

In order, however, to give an idea of the scope of the work, it is necessary to refer to the number and extent of the views presented. Naming them in their order, we have longitudinal sections of the entire bodies of male and female; three transverse sections through the head at different levels, viz., orbital, aural, and dental supero-maxillary; three transverse sections through the neck at the upper, middle, and lower

portions respectively; eleven similar sections from the root of the neck to the floor of the pelvis; a vertical section of an injected knee-joint; also one of the foot; transverse sections of upper, middle, and lower portions of the thigh; also of the upper, middle, and lower thirds of leg; transverse sections of the thorax, showing normal and pathological conditions; vertical section through elbow-joint; also through hand and fingers; transverse sections of arm, forearm and wrist; sagittal sections through the body of a female advanced in pregnancy; and finally, sagittal section through the lower half of the body of a female at full term. Besides these photographic representations, there are, as before stated, forty-six woodcuts illustrating other sections. On each plate the different parts brought into view are suitably indicated, while a detailed description is given in the text. The plates themselves are beautifully executed, and exhibit all that accuracy of detail which we have a right to expect in first-class photographic representations.

As a whole the work cannot fail to meet with a hearty reception by every progressive student of the human body. To the surgeon it is a contribution to the study of topographical anatomy which needs to be known to be properly appreciated. To such practitioners as reside in large cities, where anatomy can be studied upon the cadaver, it will afford a valuable aid, while to such as are without such means of study it is an almost indispensable addition to a working library. Works on anatomy are usually dry and uninteresting, but the study of these plates forms such an exception to the general rule as to beget a certain enthusiasm for the science. Mr. Bellamy has made an excellent and readable translation, and deserves the thanks of his English reading brethren for placing such a valuable work within their reach.

A Practical Treatise on Diseases of the Skin. By Louis A. Duhring, M.D. Philadelphia: J. B. Lippincott & Co., 1877.

Certainly no more striking evidence of the progress now being made in the study of skin diseases can be offered, than that we have here a large compendious work on the subject, written by an American. The qualifications of the author for such a task are so well known and so generally conceded, that we take up the work knowing that it is at least all that it claims to be, rather than in a spirit of doubt as to its real value. There has until now, undoubtedly, been a decided want for a book in the style of that of Hebra's, which, in less compass, yet in the main covering the same ground, should give a thorough description of skin diseases and their treatment. There were certain objections of greater or lesser weight against all works previously published, and there was really no work which the teacher could unreservedly recommend to the student. The present work, however, we think, answers all requirements, and will prove in all respects satisfactory. The general division of the work reminds one of the classic treatise of Hebra, as the classification proposed by the latter has been adopted with slight changes by Duhring. The first part is, as usual, devoted to general considerations, and is in all respects admirable. The anatomy of the skin is well described and illustrated by very excellent woodcuts; the chapter being, on the whole, one of the most simple and satisfactory with which we are acquainted. In the section upon symptomatology each primary lesion is first tersely defined, and then carefully described, and besides this the synonyms are given. The question of etiology is perhaps one of the most difficult of handling for any author of any part of a treatise on skin diseases, and to it we naturally turn in a curious spirit. The chapter on this subject by Dr. Duhring is very satisfactory in many respects, chiefly from its simplicity. We find in it no useless theorizing whatever, which is the bane of many books, no verbose descriptions of imaginary diatheses, but only a plain statement of such conditions as are found to predispose to or to excite skin affections. The author briefly speaks of age, sex, seasons, and climate, as external causes: and hereditability, predisposition, certain constitutional diseases, and disorders of digestive organs, and pregnancy as internal causes. He in like manner considers external causes; and in brief, in a few pages tells us tersely and clearly all that he is warranted in telling us of this subject. We are pleased to see an excellent chapter on the pathology of the skin, in which the morbid processes incident to it are well but briefly described. The principles of diagnosis and treatment and the elements of prognosis are treated of in a similarly broad and simple manner, and a perusal of the respective chapters will materially assist the student in his studies. In the same terse way the author's reasons for using Hebra's classification are stated, after which it is given in full. We are glad to see that space is not wasted on this subject, and that we are not inflicted with the divisions proposed since the time of Mercurialis. Space will only permit of a general criticism of the work, and there are many points which we cannot allude to. The descriptions of the various affections are given in a simple and graphic manner, and are certainly all that can be desired. The differential diagnosis is carefully worked out, and the treatment fully and plainly given. Indeed, an important feature of the work is its richness in therapeutical detail, and for this purpose it can always be consulted with benefit and satisfaction. We would particularly insist on this point, so vital to the usefulness of a book, and would repeat that we know of none other to which one can refer with as much benefit in the way of clear practical therapeutic directions and detail as to this one. In the descriptions of the affections there is a wonderful uniformity of excellence, and it seems almost invidious to note any one or more in particular, but we feel that we must call attention particularly to the very thorough chapters on seborrhœa, eczema, new growths, and parasites. Certainly that on eczema is admirable. It is seldom our good fortune to meet with so satisfactory a book as the present one. In its clearness of description, its terseness and comprehensiveness it is certainly exceptional, and it will for years take high rank as a hand-book for diseases of the skin.

Death from Chloroform.—A death under chloroform has lately occurred in the Derbyshire Infirmary. John Holmes, aged 56, a platelayer on the Midland Railway, was about to submit to an operation for fistula. About three drachms of chloroform had been administered, when violent muscular spasm supervened, the respiration became embarrassed, and death resulted in spite of every effort at resuscitation. The anæsthetic was properly administered, and no blame seems to attach to any one. This case illustrates what we have very frequently pointed out—viz., the great danger of that period of chloroform narcosis which is characterized by muscular spasm. At this time the respiratory muscles, as well as other muscles of the body, are in a condition of rigid tonic contraction, and the dangers of apnœa are added to those which are inseparable from anæsthetization. At these times the administration of chloroform should be entirely suspended until the spasm ceases.—*Lancet.*

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 5, 1877.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

THE OSTEOCLAST.

THE subject presented by Dr. C. Fayette Taylor (see p. 241) being before the Academy for discussion. Dr. GEORGE A. PETERS remarked that he had long recognized the desirability of something by means of which a bone could be fractured at the point of election. As soon as he saw the instrument devised by Dr. Taylor, he was convinced that it would accomplish what had been desired, and that it would prove itself to be of great value to the general surgeon. For it was possible to elect the point at which fracture should be made, and with this osteoclast the bone could be broken at that point with certainty.

He had seen the patient referred to by Dr. Taylor, and could confirm all that had been said concerning him. He had a useful limb.

With reference to the apparatus to be employed after the fracture had been made, Dr. Peters was of the opinion that union would have been facilitated, perhaps have been completed within a shorter period of time, had the plaster-of-Paris dressing been employed from the beginning. As to the difficulty in applying a plaster-splint, so as to secure coaptation of the fractured ends at any angle desired, he was of the opinion that there was no practical difficulty at all. Had the plaster-of-Paris bandage been applied at first the boy would have been able to move about, get exercise and fresh air; whereas he lost six weeks by being confined in bed with the splint employed. Besides the hygienic advantages afforded the patient, who wore a plaster-of-Paris bandage, he was also of the opinion that no apparatus could bear a favorable comparison with it for securing complete immobility of the parts after they had been accurately coaptated. Dr. Peters also remarked that he had thought it impossible to use so much force upon the limb without producing some injury to the soft parts: but in Dr. Taylor's case no damage whatever was done, the skin not even showing where the instrument had been applied.

DR. LEWIS A. SAYRE remarked that although Mr. Adams had very much improved the operation of section of the femur, by making it subcutaneously, yet, with all the advantages of Lister's carbolized spray, he should very much prefer that a compound fracture should not be made. If the apparatus brought forward by Dr. Taylor, which seemed to be capable of accomplishing the purpose for which it was made, could be placed upon the thigh so as to fracture the femur near or through its neck, it would be of the greatest possible value. Whether the instrument was capable of producing fracture when the bone had become eburnated could not be stated, but for all ordinary bones it was probably sufficiently powerful. The great object, if fracture was to be produced, was to produce it at the point selected, and the instrument presented was apparently destined to fulfil such indication. If it could be so constructed as to enable the surgeon to produce fracture within an inch of the trochanter minor or higher, its value would be very much increased, for the reason that motion might then follow as the result of the formation of a new joint.

Dr. Sayre agreed with Dr. Peters in the opinion that for the purpose of securing the limb with the greatest possible precision, nothing could take the place of the plaster-of-Paris dressing. An additional advantage afforded by that dressing was that it placed the patient in a condition in which he could avail himself of the best possible hygienic surroundings. That there was no ecchymosis produced was probably due to the fact that the fracture was made suddenly, and the pressure at once removed.

DR. W. T. WHITE referred to a case of accidental fracture of the femur occurring in the Presbyterian Hospital. The fracture was in the upper third, was produced while manipulating the limb, was dressed with the plaster-of-Paris bandage, and made a perfect recovery.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 28, 1877.

DR. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

SYPHILITIC TESTICLES.

DR. J. M. WRIGHT presented two syphilitic testicles, removed at different times by castration from a patient 47 years of age. Ten years ago he had a chancre, and in the course of four months after was seized with secondary symptoms. He came under Dr. Wright's care six years ago, with an extensive pharyngeal ulceration, and soon after the healing of the same by an antisyphilitic course, a gummy tumor made its appearance upon the outer aspect of the right thumb. Six months subsequently the right testicle began to enlarge, and at the end of a year afterwards measured ten inches in circumference and five inches in its vertical diameter. Despite treatment, the disease progressed, sloughing ensued, and numerous openings were formed upon the surface of the organ, communicating with necrotic tissue. On June 25, 1875, this testicle was removed. He made a bad recovery from the operation, an abscess complicated with erysipelatous inflammation forming in the right inguinal region. Six months ago the patient again presented himself with the left testicle as large as the right had been, and with the same gummatous degeneration. This organ was likewise removed, and showed a cavity in its substance filled with the ordinary contents of a gummy tumor. The specimen was interesting on account of its great size.

SPONTANEOUS CURE OF HIP DISEASE.

DR. GIBNEY exhibited the head of the left femur, illustrating a spontaneous cure of hip disease. It was removed from a boy eleven years of age, who had died of gastro-intestinal disorder. Previous to the latter illness the patient was apparently perfectly well, in fact, had become robust. The deformity of the hip which resulted presented the usual appearances which are referred to dislocation of the head of the femur on the dorsum ilii. On examining the joint at the autopsy the muscles in its immediate neighborhood were well developed, the sinuses which had existed during the progress of the disease had entirely healed, and the bone itself presented no sign of actual disease. The head of the bone was, however, firmly fastened in the acetabulum, a portion of the caput femoris was entirely gone, the remainder being considerably eroded around its whole extent. The real point of interest was the alteration of the relation of the head of the bone to the shaft, so that it assumed the position of a right angle. There was no disloca-

tion present, but the alteration in the angle of the neck of the bone gave a general direction to the limb resembling that deformity. The disease of the hip dated from 1871, and was traced to a fall.

Dr. Sayre remarked that the case was very interesting as proving that morbus coxarius may go through all its stages, and yet recovery take place without operative interference. He asked if there was any hereditary taint in this instance.

Dr. Gibney replied that such was the statement on the case-book, but such, in view of the mother's delicate appearance, was not very trustworthy.

Dr. Savre thought that the case was a very good one to prove the propriety of removing the diseased bone by operation, whereby a more useful limb could be secured. There was no question concerning the probability of recovery without operation, but when such recoveries took place it was at the expense of a useful limb.

REPORT FROM MICROSCOPICAL COMMITTEE.

Dr. J. A. McCreery, on behalf of the Committee on Microscopy, reported the tumor presented by Dr. A. H. Smith at the previous meeting to be one of adenoma.

TUBERCULAR MENINGITIS.

Dr. Janeway presented a specimen of tubercular meningitis.

EPITHELIOMA OF THE PENIS.

Dr. Weir presented, on behalf of a candidate, a specimen of epithelioma of the penis, for which amputation had been performed. In the course of the history, the difficulties in the diagnosis of commencing epithelioma from phagedenic chancroid were mentioned.

Dr. Janeway, in this connection, referred to the case of a policeman who was threatened with dismissal from the force on account of what was supposed to be chancroid of the groin, but which really proved to be epithelioma of that part. The diagnosis was made with the greatest difficulty. In the course of his study of the case, he consulted certain works on venereal, but failed to find any particular reference to any distinctive marks which might be present. It seemed to him that syphilographers were inclined to ignore the possibility of any mistake, rather than attempt to explain it. A good excuse for such a course might be found in the fact that these cases of epithelioma, when fully developed as such, passed into the hands of the surgeon, and were entirely lost sight of by the specialist.

Dr. E. Mason thought it almost impossible to draw a distinction in some of these cases, and gave an illustration in point.

Dr. Briddon was of the same opinion, and also referred to a case in which the difficulties were strikingly apparent.

FRACTURE OF THE INVOLUCRUM.

Dr. Weir presented a fracture of the involucrum which he had removed from the arm of a patient of Roosevelt Hospital during an operation for necrosis. The man was formerly a soldier, was thirty-five years of age, and in good condition. On withdrawing the necrosed portion, during the operation, the involucrum was found to be fractured, and was also removed. The latter condition was supposed to be the result of an injury to the arm received three weeks before.

The Society then went into Executive Session.

Correspondence.

ERYTHROXYLON COCA.

[To the Editor of The Medical Record.

Sir:—From time to time spasmodic efforts have been made to introduce into popular use the leaves of the Erythroxylon coca, or Peruvian coca plant.

The high value of this plant has never been fully appreciated outside its native lands, owing to the condition in which the same reaches the markets.

The leaves of the Erythroxylon coca (coca being the name for the plant in the native language), when fresh, look very much like the leaves of the cherry tree, and are gathered several times a year, and are then quickly dried in the sun. They are, when fresh, of a light green color, having an aromatic odor, similar to the spiræa ulmaria, and possess qualities which the plant, when we receive the same, to a high degree is stripped of. By being carelessly packed, and by being exposed to a high and damp atmosphere in the ship-hulls during transportation, a kind of fermentation takes place in the leaves, and they become of a brownish-green color and lose most of their aroma.

When in this state the medical profession has tried the plant over and over again, and, of course, never received the important results of its use as there is claimed for it in its native countries.

In Bolivia and Peru, and in parts of Brazil, the culture of the Erythroxylon coca in the different valleys forms an important item in the agricultural economy of the country; the use of the leaf among the natives being almost universal.

The inhabitants of these countries, and especially the native "Caqueroes," chew the leaves, it being nearly the only luxury of diet they indulge in. It is a well-known fact that this people, who live to an average high age, generally retain their mental and physical faculties to their last days. By chewing the coca leaf it is further known that they are enabled for days to travel over rugged mountains, exposed to a burning sun, or to work deep down in the mines for days without partaking of nourishment or sleep, and without showing any great signs of exhaustion.

Alexander von Humboldt, Bonpland, and other scientists, all speak of the coca plant, agreeing that asthma and tuberculosis are unknown among the Coqueroes, and it is praised by many authorities like Tschudi for its ability to prevent, in some degree, the waste of tissue. Tschudi, in his description of the coca plant, narrates that he, on several occasions, partook of coca, and was by its use stimulated so that he could hunt and travel on mountains 15,000 feet above the level of the sea, feeling no necessity for sleep and nourishment; and that he could run and climb in this height without more inconvenience to his respiratory organs than he would suffer on the plains, and without any extra degree of fatigue.

The coca leaves have been recommended in tuberculosis, asthma, dyspepsia, nervous debility, hysteria, and bilious disorders. Practitioners like von Martius and Demarle in Paris, have tried species of well-preserved leaf, and are high in its praise as a tonicum.

Lately a process has been under consideration whereby it is thought to preserve the medical properties of the plant; the fresh leaves are with sugar reduced to a pulp and then dried, afterwards pulverized and packed in hermetically closed tin cans. Last October I received, through the kindness of a friend,

some of this preparation sent from Lima, which I made into a syrup and which has been tried by several practitioners of my acquaintance. Several experiments which were made, and which I, when completed, will take the liberty to record in the MEDICAL RECORD, seem to demonstrate the truth of the high therapeutic value of this drug.

FERDINAND LASCAR.

MYELITIS OF ANTERIOR HORNS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Last evening I was looking over Dr. Seguin's recent and admirable monograph on *Myelitis of the Anterior Horns*, and found that he approves of the term *Poliomyelitis anterior*, suggested by some European observer. The word *poliomyelitis* is to me a new one, and I presume the prefix is from the Greek πολιός, meaning gray. Now the word πολιός is usually applied in Greek literature to that which is gray and venerable from age, and is used in relation to hair more than any other object. It is, moreover, a poetical word really, although occasionally used in prose. The nearest English equivalent is our word "hoary." To my mind, therefore, the word πολιός is used in the above compound with manifest impropriety.

The gray matter of the nervous system is often called the *cineritious* substance, from the Latin word for *ashes* or *ash-colored*, and its color cannot probably be better described than in this way. The first part of a compound word signifying inflammation of the gray substance should be a Greek word for ash-colored.

Such a word is σποδιος, which means this very thing, and its cognate word σποδοειδής is used in this sense by Hippocrates. The latter word is too long and clumsy, but the former would be good in form and meaning. Another word, with the same or nearly the same meaning, is τεφρός. Either of these is preferable in every way to πολιός. The compound, therefore, should be *spodiomyelitis*, or *tephromyelitis*, to be defensible.

To object to the Latin word *anterior* would be hypercritical.

I do not wish to appear pedantic, but it is just as easy to be correct as to be incorrect, and a great deal more satisfactory.

Yours respectfully,

ROGER S. TRACY, M.D.

103 W. TWENTY-NINTH ST., March 28, 1877.

HYDROBROMIC ACID AND QUININE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Dr. Forrest has undoubtedly done a good thing in calling the attention of the profession to Dr. Fothergill's recommendation of hydrobromic acid as a means of preventing the tinnitus aurium of cinchonism. He has, however, entirely misunderstood the sense of my communication published in No. 329 of the RECORD. I did not represent hydrobromic acid as dangerous when properly prescribed, but I did point out to the readers of the RECORD the danger of making use of the following prescription, given, I believe, in Dr. Forrest's first communication, without appending to it a proper formula for the preparation of the acid. The prescription is as follows:

℞. Quiniæ sulph..... ʒ i.
Ac. hydrobromic,
Aquæ, āā.... ..... ʒ iss. M.

"Two teaspoonfuls contain five grains of quinine."

This prescription has been copied by physicians in Brooklyn, and I have no doubt in New York and elsewhere, and very unpleasant results have followed, because Merck's strong acid was used by the druggist in making up the prescription.

Physicians in general practice will not, as a rule, write out directions for the manufacture of any article called for in their prescriptions. The druggists are expected to put up the medicine *secundum artem*. Private formulæ, or formulæ that are not accessible to all druggists through some official channel, are discountenanced both by the American Pharmaceutical Association and by the medical societies. So long as there is no officinal standard for hydrobromic acid, and as there are preparations of different strength in the market, it will be well for physicians who wish to give this acid, to prescribe the articles which in their combination will form hydrobromic acid.

Thus:

℞. Potassæ bromid.... grs. clxij. (162)
Ac. tartaric..... grs. cxcviij. (198)
Quiniæ sulph..... ʒ i.
Aquæ..... ʒ iij.

Mix and filter.

This prescription will give precisely the same result as the above prescription of Dr. Forrest's, when the acid prepared according to Fothergill's formula is used, and there is no danger in allowing this prescription to be put up by any druggist, as the articles called for are all officinal.

Dr. Forrest suggests that "until we have an officinal preparation of hydrobromic acid, we cannot do better than to use the preparation made according to Fothergill's formula, a preparation so simple that any druggist can make it."

The only objection I make to this proposition is, that serious mistakes will be likely to occur, inasmuch as druggists are not familiar with Fothergill's formula, and unless physicians give the formula with the prescription, which they usually will not do, other and stronger preparations of this acid already upon their shelves will be used.

How often does it occur that the physician does not obtain a satisfactory result from the use of a new remedy, simply because his prescription is indefinite as to the quality of the article prescribed, and how often, too, the physician accuses the druggist of not properly putting up his prescription, when the prescription has not accurately defined the physician's intention in prescribing.

I wrote before, and I write again now, to suggest the importance of an unmistakable definition of every new remedy which the physician embodies in his prescription, both as to the quality and manufacturer, when there are various kinds in the market. For instance, no medicine is more abused than pepsine. There are a score of different kinds in the market, varying as much in quality as in price. It makes a great difference in the result whether Hawley's or Beale's pepsine is used, and yet the cheaper quality will be used unless another variety is specified.

I raise no question at present as to the therapeutical value of hydrobromic acid, and shall give the medicine a fair trial as opportunity is afforded; but in so doing I shall be careful not so to prescribe it as to incur the danger of cauterizing my patient's throat, or to put his life in jeopardy.

CHAS. W. VROOMAN, M.D.

11 GREENE AVENUE, BROOKLYN, April 10, 1877.

New Instruments.

A NEW PROSTATIC GUIDE.

By F. N. OTIS, M.D.,

NEW YORK.

This simple instrument has been contrived for the purpose of aiding in the introduction of the soft rubber catheter in cases of enlarged prostate gland. Not long since I was called to Brooklyn in consultation to see a case of retention of urine caused by prostatic obstruction. The cause of trouble had been recognized, and readily overcome by the surgeon in charge of the case, who had repeatedly passed a Mercier's gum-elastic catheter. On the day previous, however, some change having evidently taken place in the course of the prostatic urethra, all efforts to enter the bladder were unsuccessful. The united endeavors of two experienced and skilled surgeons had failed to get by the obstruction, and relieve the retention. The prostate was about the size of a small orange, somewhat irregular, and largest on the left side. A catheter of the ordinary curve was abruptly arrested midway of the prostatic urethra. A Mercier's gum-elastic was resisted at the same point. A *Squire's vertebrated catheter* was then introduced, and as it was advanced to the point where previously used instruments were arrested, its extremity was deflected abruptly to the left (as appreciated by a finger in the rectum), and passed from thence into the bladder at almost a right angle. After emptying and washing out the bladder through the *Squire's* cathether, it was deemed wise to leave the instrument *in situ*. On the day following some irritation having resulted, it was determined, if possible, to substitute for the metallic instrument a soft india-rubber catheter. This proved somewhat difficult to accomplish. The suppleness of the soft catheter, which constitutes its chief excellence, proved a bar to its entrance into the bladder, as on being pushed down to the point of obstruction, it doubled, and could not be passed. It was then stiffened with a wire guide, bent at an inch from its extremity to correspond to the deflection of the canal at the prostatic portion. This bend, however, interfered with the withdrawal of the guide after the instrument had been carried into the bladder, and it was only after substituting a smaller wire, and experiencing some embarrassment from its want of stiffness that the object was finally accomplished.

The desirability of having some suitable aid in the introduction of the soft rubber catheter under such and similar circumstances, was very evident, and was a matter of discussion at the time. After considering various expedients during the few days following, I finally contrived what I propose to call the *Prostatic Guide*. This was constructed for me by Messrs. Tiemann & Co., and a cut of the instrument is appended. It consists of a slight steel rod, A, eight inches in length, upon which is screwed a spiral ribband, B, five inches in length. The union is strengthened by the projection of the end of the rod into the spiral, for half an inch beyond the screw, C. This spiral ribband is so flexible that it can easily be made to take the curve of the urethra, or any irregularity in its course which may present. Its small size makes it capable of being easily introduced iuto Tiemann's soft rubber catheter, and by means of it the catheter may be carried down and along the urethra to and into the bladder, following any deviation in the course of the canal which may be present from prostatic enlargement or other causes. I have had several opportunities of trying it at my clinique in the presence of the class and on private patients, and have fouud it thus far to work admirably.

The readiness with which the soft catheter can be introduced into the bladder by the aid of this simple instrument, and its easy withdrawal, leaving the catheter still in the bladder, makes me confident that it will be found a cheap and efficient substitute for Squire's admirable instrument, besides enabling the surgeon to make use of soft-rubber catheters, when otherwise it would be difficult, if not impossible.

108 West 34th St., March 5, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 8 to April 14, 1877.

Havard, V., Asst. Surgeon. When relieved by Asst. Surgeon Perley to report in person to the Commanding Officer, Fort A. Lincoln, D. T., for field service. S. O. 42, Dept. of Dakota, April 4, 1877.

Perley, H. O., Asst. Surgeon. Assigned to duty at Fort Pembina, D. T. S. O. 42, C. S., Dept. of Dakota.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending April 14, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
April 7	1	2	93	7	33	38	2
" 14	0	2	101	5	38	40	1

The Medical Society of the County of New York.—The subject for discussion at the next stated meeting will be "The United States Pharmacopœia."

Louisville Hospital, Ky.—The following gentlemen have been appointed resident graduates in this institution: Dr. Walter Izard, of Virginia, Hospital College of Medicine; Dr. Boyd Cornick, Tennessee, Hospital College of Medicine; A. P. Owens, Louisville Medical College; W. H. Barnard, Mississippi, Hospital College of Medicine.

Presbyterian Hospital.—The Ninth Anniversary of the Presbyterian Hospital was held April 11th in the chapel of the institution. The annual report read upon that occasion showed the hospital to be full and in a prosperous condition. Addresses were delivered by Rev. Drs. William Taylor and Hitchcock.

Provident Dispensary System.—The Public Health Association held a meeting April 12th, to consider the advisability of establishing a provident dispensary

system in this city. Mr. James C. Bayles read a report of the committee upon this subject. Considerable discussion followed, in which remarks were made by Drs. George C. Bayles, S. F. Morris, H. G. Piffard, E. G. Janeway, Warner, and many others. A resolution was adopted appointing a committee composed of Drs. S. F. Morris, J. C. Peters, and O'Sullivan, to confer with the medical officers of the different public charities and report accordingly.

Dr Gurdon Buck.—At a stated meeting of the New York Academy of Medicine, held April 5, 1877, a committee consisting of Drs. W. T. White and J. R. Leaming presented the following resolutions, which were unanimously adopted:

Whereas, It has pleased an All-wise Providence to remove by death our late associate, Gurdon Buck, M.D., an original Fellow of this Academy, therefore be it.

Resolved, That the medical profession of this country, and especially the N. Y. Academy of Medicine, mourn the loss of an eminent member and an upright citizen.

He was singularly devoted to the advancement of his profession. He was assiduous in the performance of self-imposed duties of charity at the hospitals and at the dispensaries of this city.

He was ever ready with counsel and support at the medical societies.

His surgical achievements belong to the history of his native land. They were original, practical, and brilliant.

In the galaxy of talent which shone in the old New York Hospital, he stood among the foremost. His patriotism and high Christian character are our worthy example.

Resolved, That we tender the family of Dr. Buck our sincere sympathy.

Resolved, That a copy of these resolutions be sent to them, and that they be published in the medical journals of this city.

S. S. Purple, *Pres.*

H. T. Hanks, M.D., *Recording Sec'y.*

Specialism and General Practice.—Dr. Frank H. Hamilton, of this city, in the course of an address recently delivered to the Alumni Association of the Medical Department of the University of Buffalo, made the following remarks:

To understand this matter, let us see what has happened within a few years. When I commenced the practice of my profession, and within your recollection, we, who simply called ourselves physicians and surgeons,—general practitioners,—occupied the entire field. There might have been here and there a strolling specialist, but they failed generally to secure the confidence of the people, or to make any dangerous inroads upon our practice. Our legitimate right to the entire territory was practically undisputed. Since then, however, following upon a few established successes, there has sprung up suddenly a great excitement, such as inevitably follows the rumors of the discovery of a new bonanza; and emigrants, with no other capital than a pick and gun, have crowded into the territory, and never so much as saying "by your leave," they have selected their ground and driven their stakes until little or nothing is left to the original proprietors but the barren title of Doctors, and which title is found to have no weight in law as against the intruders. To-day there is scarcely an organ of the body or an anatomical and classified structure into which these stakes have not been driven, and from which trespassers are not warned.

Let us mention a few of these specialties:—For the head there is the occulist, the aurist; the catarrh doctor for the nose; the throat doctor; the dentist, of whom there are several subordinate and separate departments.

There are heart doctors, and lung doctors; and some who include both of these important organs in their practice, and might properly be called chest doctors. The liver is an old claim, which was worked a good many years and then abandoned as being worked out. There are kidney doctors, also; but no one has ever driven a stake into the spleen, although I do not see any good reason why it might not be worked profitably. There are a great many people who are spleeny, and if any one could summon the courage to put up a sign, I am sure he would be well patronized.

There are doctors for the nerves and for the blood; doctors who can expel by their medicines all the bad humors, and leave their patients in good humor. There are skin doctors and bone doctors, spine doctors and crooked-leg doctors, natural bone-setters, hair doctors, and corn doctors.

I have not, by any means, exhausted the list of specialties, which are to-day recognized in medicine and surgery; but I think you will see that there is a good deal of crowding, packing edgewise, and some overlapping, and that not much chance is left for the old-fashioned physician and surgeon.

Centralization in Journalism.—The Medical Society of Virginia has acted wisely in incorporating its Transactions with the January number of the *Virginia Medical Monthly*. The Massachusetts Medical Society has adopted a similar policy for a number of years. This is a step in the right direction, but it would be of little advantage to stop here. The question of centralization in journalism is one which we hope will soon follow this period of literary inflation, which seems to have spread with all the vigor of a virulent epidemic over the Old World as well as the New. In spite of the almost certain failure which may be predicted of any new journalistic enterprise to-day, we constantly see additions to a list which has already outgrown the demand for reading matter. This condition of things is brought about, as we have already shown, by personal and selfish motives which alone stand in the way of an arrangement which would enable all parts of the country to be brought into free communication with each other. We commend this subject to the consideration of the association of editors as a fit subject for discussion at its meeting in Chicago this spring.—*Boston Med. and Surg. Jour.*

A Case of Acute Aortitis.—M. Dujardin Beaumetz recently presented at the *Société Médicale des Hôpitaux* some specimens taken, *post-mortem*, from a man who had been under his observation. The symptoms which he had shown were dyspnœa, and pain over the cardiac region. There were no murmur either in heart or aorta, but the urine was scanty, and there was considerable œdema of the lower extremities. The autopsy revealed hypertrophy and fatty degeneration of the heart, with congestion of liver and kidneys, and acute inflammation of the aorta. The internal surface of this vessel was red, rough, and marked by numerous points of ulceration.—*La France Médicale*, 17, 1877.

The Lyon *Médicale* speaks of a woman who has given birth to twenty-nine children within nine years. All are girls; were born as triplets, and are perfectly healthy.

Original Communications.

UNISON-RESONANCE IN AUSCULTATION.

By EDGAR HOLDEN, M.D.,

NEWARK, N. J.

Any one who has had occasion to examine critically a very large number of persons supposed to be sound (as for the army or in life insurance) must have noticed that in the lungs of many a condition akin to consolidation existed, unaccompanied by outward evidence of disease; that, in fact, actual stasis of circulation of blood and of air existed at one or both apices, or in some part of the lungs, and that without cough, emaciation, irritation, or history of previous inflammatory trouble, a condition was present usually only found in the incipient stage of pulmonary disease. By a fortunate concurrence of circumstances, I have had occasion to verify a long-standing conviction that this state, albeit a frequent one in persons esteemed healthy, is but the nidus of organic disease—that it is, in fact, the pre-incipient state of such disease.

The disappearance of this stasis or passive local congestion in some cases, and its development into full-fledged disease in others, instead of militating against the theory, really tends to confirm it, since everything great in nature had at some time small beginnings, and in all the progressive changes in the body there must of necessity be a time when a very slight influence will determine the direction of the change.

In this instance, increase of nutritious food or of out-door exercise, of mental quietude or healthful change of climate, may imperceptibly convert the condition favorable to disease into one of absolute and positive health. It would not be difficult to select, off-hand, a score of individuals who to-day carry about in their bodies this condition, which lies like a border-land between life and death, a veritable tinder waiting but the spark of a trifling cold to waken it into life, with all the long, slow train of exudation and impairment of function, of imperfect organization and necrobiotic effort at repair, and finally caseous degeneration or rapid dissolution and decay.

If, as can be incontrovertibly proven, this condition does exist and does disappear without our aid or knowledge, may it not be accepted as a dogmatic truth that in all cases of pulmonary disease, such as we are accustomed to include in the term consumption, there is a preliminary condition between health and disease, varying in duration, but always present, which, like the rivulet, may be turned by the hand, but which, become a river, is resistless in its progress? We may not unfrequently find this form of stasis or engorgement arise from sedentary employment, and from long-continued neglect to fully inflate the lungs, and see it speedily disappear under exercise, or the use of the pneumatometer or other device for bringing the disused tissue up to its proper function.

In these cases I have seen persons actually faint or grow dizzy from the unaccustomed supply of oxygen derived from simple forced expansion of the chest. The inference from all this is probably clear, viz.: Detect this condition in all cases, and this scourge of our humanity and bane of our profession is shorn of its terrors.

Working in this direction with instruments more or less complex and made for the purpose, I have obtained such results as warrant the boldness of the views above advanced, but the chief cause of the present article is, that the recent publication in this journal of an accidental discovery, having reference to the early detection of disease, and termed a resonator, has seemed to demand a more elaborate investigation, because giving rise to the question as to how far the principle involved can be applied to diagnosis. Especially is this the case, since any departure from certain precise and definable acoustic principles in the construction of the instrument must result in disappointment. If the reader will recall the experiments of Savart and Helmholz on the reinforcement of musical notes by hollow spheres, and opened or closed tubes of resonant quality, and permit the following brief description of one or two of them, the acoustic principles alluded to will be clear.

Helmholz devised certain hollow metallic globes which, when held to the ear, selected and magnified the particular note out of a composite sound or clang with which their cavities were in unison. These he called resonators. Savart, before him, observed that if a tuning-fork was made to vibrate almost imperceptibly, and held over a tall cylindrical jar, into which water was being poured, the vibration became a clear, loud note, when the column of air in the jar had been so shortened by the water as to bring it into unison with itself. It became, in other words, strongly reinforced.

Prof. Tyndall has moreover shown that "the open tube which gives the maximum resonance is exactly twice the length of the closed one," a point of importance in this connection. All sounds, and particularly those of a musical character, may be reinforced by unison-resonance, consonance, or echo.

It is probable that all of these enter into the production and modification of the sounds heard in the chest, whether of health or disease, although the followers of Skoda would concede but little to any except the second, and those of Laennec adhere to the first alone.

Whatever theory we may adopt, however, the points of interest are: 1st. Can we reinforce and magnify the sounds of respiration? and 2d. Will such reinforcement facilitate diagnosis?

Under ordinary circumstances, if in doubt as to the sounds presented to the ear, the stethoscope is resorted to, and a greater intensity and concentration are obtained, the various modifications of the instrument with pleximetre attachments, or as in the timbrometer of E. Houston Fourjett, with separate vibrating bow, being of use to magnify the sounds *after* they have been transmitted through the thoracic wall. The sounds are then easily magnified, but if they, or any of them, can be magnified *before* transmission—that is, from the inside and not from the outside of the chest—is not a step immediately made in advance? for the character of the conducting medium is at once made more manifest, and the râles of the minuter bronchioles are developed to the ear.

The other advantages of such intensification or amplification will be given below. We have seen by the investigations of Savart and Helmholz and Tyndall that any note may be reinforced; and practical experience shows that this reinforcement occurs if a column of air vibrates in unison with it, or if another note in harmonious consonance is developed near. Every auscultator is aware of the advantage sometimes derived from having the patient count in different tones or in a whisper, and if an octave or two is run upon a flute or Pan's pipes this principle is strikingly illustrated in the greater intensification of some of

the notes and their harmonies. This intensification varies with the condition of the lungs as regards health, and might be made available if both inspiration and expiration could be thus amplified.

In this, indeed, lies the correct key to a pulmonary resonator; both inspiration and expiration must be intensified, and this must be done without disturbance of their proper relation.

Now if a unison-resonance can be developed in continuity with the inspired and expired air, reinforcement will follow, *provided* the notes developed in the chest by each are the same or in harmony with each other, and this will be the case whether we ascribe the tube or true bronchial sounds to the passage of air through them, or, as I believe Spittal asserted (for his original articles are not at hand), to the glottis.*

Acting upon this principle, the problem is not a difficult one. A soft rubber tube, when blown into with some force, yields a rushing noise at its free extremity, the contained column of air being thrown into vibration. Constriction of the tube increases this sound, and at certain regular degrees of constriction the noise of exit and ingress of air are clearly in harmony. The following figures illustrate this:

Thus A gives harmony, B discordance, and C again yields notes in harmonious accord.

Applying the constriction at certain points in the tube shows the most favorable point for clearness and intensity to be near the proximal end or mouth-piece, and still further experiment that rigid metallic end-pieces, particularly for the distal end, are advantageous. The length of the tube then becomes a question of interest, and a few trials show that four and a half inches, six and a half, eight and a half, and so on to eighteen and a half inches, yield the best results—a fact which is probably explicable on the principle of semi-ventral segmentation of the contained air, as determined in organ-pipes.

Having thus arrived at certain practical data by experiment, it appears that we have as the most perfect resonator a flexible tube similar in size and point of constriction to the trachea, and bearing a certain relation to it in length; and this, discovered by mere accident, is the resonator presented in THE MEDICAL RECORD, as a discovery in physical diagnosis.

Without assuming more than the current knowledge of acoustic principles, and willing to concede possible error in the above explanations, it is yet a fact easily proven by any one who will take the trouble, that if a tube be made constricted as described, so that the sounds made by the egress and ingress of air give the same note or the harmonics of the same note (a point readily determined by the ear), the ear of an observer applied to the chest receives an intensified expression of the original bronchial murmur, even from the minuter ramifications of the bronchial tree. It may be still further observed, that although a tube more than twice the length of the trachea has been advised, yet upon the principle enunciated by Prof. Tyndall, that "the open tube which gives the maximum resonance is exactly twice the length of the closed one," a different length, equal as near as ascertainable to twice the length of the trachea, might be an improvement.

Inasmuch, however, as the trachea is not absolutely a closed tube, but is continuous with the large bronchi, and they in turn open into smaller divisions, I have been unable to more nearly approximate correctness in this particular.

It becomes now a pertinent question, what can be expected from amplification of the bronchial or tubular sounds?

Obviously we shall have at least as much as we obtain from the transmission of the voice in counting or speaking, and the value of this, under many circumstances, is unquestionable. Inasmuch, however, as the sound is a uniform one, we shall get more, since now we lose much of the good to be derived from the transmitted voice by the fact that the patient cannot always run the gamut in counting to bring out the most favorable tones, and a continuous sound is by the instrument made to replace a broken one of vowels and consonants. The explanation of the whisper, first noticed by Wright (*Univ. Coll. Hosp.*, vol. xv., p. 14), lies probably in the fact of its greater evenness and uniformity.

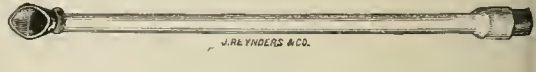
Of course no amplification of the vesicular murmur can be expected. The very nature of this as now commonly received precludes such an idea, and indeed this fine rustle of mechanical dilatation is obliterated, if the parts are in health. When plastic deposits exist, the crepitant râle speaks for itself to the unaided ear.

Sonorous and sibilant râles are intensified. Dilated bronchi and tubercular cavities are, as they would naturally be, more clearly defined, especially (and a point of importance) as the air in the lungs, backed up by the effort of forced respiration, brings the pulmonary tissue more closely against the thoracic wall, thus affording a more homogeneous conducting medium. Local deposits, obstructed bronchiæ, pleuritic effusions, and emphysema, intra-thoracic glandular engorgement, and finally the beginning of fibrinous repair in certain varieties of phthisis may be cited as coming within the scope of the principle involved.

Especially is it hoped that the stasis alluded to at the beginning of this article may be the more readily detected, and the always curable stage of consumption found and attacked.

For life insurance examinations the application of the principle will be apparent.

The following cut represents the resonator made for my own use.



MASSAGE IN WRITER'S CRAMP AND ALLIED AFFECTIONS.

By DOUGLAS GRAHAM, M.D.,

BOSTON, MASS.

As supplementary to the excellent article on *Writer's Cramp*, by Dr. Beard, in the Philadelphia *Medical Times* of February 3d and 17th, the following cases bearing upon the subject may be of interest. The first I found in "Schmidt's Jahrbücher," Bd. 166 page 166, 1875, and the other two in "Virchow und Hirsch's Jahresbericht" for 1874, 1, page 384. There they have been translated from the Scandinavian into the German, and to my knowledge they have not till now appeared in English.

CASE I.—"Rossander's case was that of a secretary æt. 32, who two years ago had the first symptoms of writer's cramp, which then showed itself by fatigue after an hour's writing. Later there was absolute impossibility for him to write at all; he could only

* Judging from the correspondence of men of excellence and ability elicited by the original article on the resonator, this view seems a tenable one.

hold the pen and make a few strokes, and on attempting to do more the hand was drawn up, and this movement became more violent and was accompanied with pain. The hand and arm were quite strong and normal in every other respect.

The treatment consisted in the use of *massage* twice daily, energetic kneading of the muscles of the hand—of the thenar and anti-thenar, of the interrossei and lumbricales; and with a small wooden cylinder percussion of the muscles of the thumb and little finger, and also of the forearm, especially of the pronators and the flexor and extensor carpi ulnaris. At the beginning of the treatment the thenar muscles on being beaten contracted, but not strongly, but the abducens minimi digiti did not contract. Later, by degrees, however, it did. Subcutaneous injections of nitrate of strychnia, ten to twelve drops of a one per cent. solution, were also given daily in the ulnar side of the forearm. After one week there was marked improvement, and after four weeks of this treatment the patient was well."

II. "Drachmann's case occurred in a lady 60 years of age, the Countess D., who for eight years had suffered from writer's cramp, with tonic convulsive spasms of the upper arm as well as of the forearm. She could neither write nor take hold of small objects with the right hand. On the middle of the flexor side of the forearm, in the tract of the median nerve, there was felt deeply situated a small spindle-shaped, smooth tumor, pressure on which gave rise to pain, and on strong pressure there was produced severe pain in the fore and middle fingers and in the thumb. Many different kinds of remedies had been tried in vain, and amongst these electricity, baths and embrocations. After two months' treatment with *massage*, without the use of any other means, the patient could write and do all kinds of fine handiwork without fatigue. The neuroma could scarcely be felt."

III.—"Gottlieb's case was that of a woman æt. 52, who had suffered from the malady for nine years. She had been obliged to write nine hours daily for two years, at the end of which time the pen fell suddenly out of her hand. At each attempt afterwards to again hold the pen, the hand trembled strongly. The forefinger of the right hand had become quite incapable of holding the pen, and the middle finger was also similarly affected, but in a smaller degree, on account of which the thumb, supported by the fourth and fifth fingers, was brought into use. There was no pain, but a feeling of formication on the dorsal surface of the two affected fingers. Upon attempting to work with the left hand the same symptoms were brought forth, but in a milder form. There was œdematous swelling of both upper extremities, also in the first and second metacarpal spaces; and extending upwards between the muscular interstices of the whole arm were found here and there spots of infiltrated connective tissue, which were painful on pressure,—these were more marked on the right side. There was considerable anæsthesia of the second and third fingers of the right hand.

After thirty-seven *massages* the patient was discharged. The hand was perfectly normal; only on long-continued and forced writing was there felt the least fatigue."

In the two last cases the reporter does not state in what manner the massage was used, but in all probability kneading or *petrissage*, and percussion with passive motion, predominated over simple upward friction. When sufficient time for rest has been allowed, and in the absence of spasm, or spasm of the flexors alone being present, I should think it might be useful to add resisting motion so as to bring systematically into more powerful action the opposing and less used extensors, which would tend to restore harmony of action by a counterbalancing distribution of will, nerve, and muscular effort.

The indications for the use of *massage* in such or any other cases could not have been better laid down than Althaus * has done in the following words: "A really effective treatment of scrivener's palsy must be an agent which is at the same time both tonic and sedative in its neuropathical effects, which must have the power of restoring the circulation of the blood in the suffering parts to its proper condition; which is capable of promoting the absorption of serous effusions, and will thus cause the nutrition of the maimed ganglia to be raised to a normal standard. Such an agent we possess in the constant current," etc.

In Case No. II. *massage* succeeded after ordinary rubbing with liniments and electricity had failed. When neither the constant current nor *massage* alone did any good it might then be well to try both; on the principle of *shotgun* therapeutics, perhaps, it would be better to combine the two on starting. These cases would also furnish strong evidence why the following remarks of J. Russell Reynolds, in his "Clinical Uses of Electricity," at page 79, should apply equally as well to *massage* as to electricity: "By stirring up the nerves and muscles of a limb you may, to a certain extent, act upon the other ends of these nerves—the ends that are in the spine and head, and so you may improve, by careful usage, the nutrition of the spinal cord, or of the brain. There can, I think, be no doubt of the reality of this secondary result." Further evidence of the influence of *massage* in that and other directions, and appropriate to the cases above related, we have in the last edition of the *Nouveau Dictionnaire de Médecine*, page 693: "Trousseau and Pidoux have signalized the violent stimulation exercised upon the nervous extremities distributed in the regions submitted to *massage*—a stimulation which is communicated to the spinal marrow, which in its turn reacts upon the parts to which it distributes sensibility and motion." . . . . . "We know the hypnotic action of the slow and gentle frictions to which certain authors have attributed the tolerance of the manœuvres of *massage* in the first instants which follow the production of a painful sprain; and on the other hand, we also know that energetic pressures determine a local anæsthesia which we sometimes utilize with great advantage. . . . . "Massage augments interstitial absorption † not only by the *sur-activité* impressed upon the returning circulation, but also by dividing to infinity the pathological and normal products accumulated in the muscular interstices and the meshes of the cellular tissue. The dissemination of these products multiplies their points of contact with the walls of the veins and lymphatic vessels, whence result their imbibition, and finally the diffusion of these substances into the lymphatics and general circulation."

An old gentleman, a lawyer by profession, at times suffered from lumbago brought on by over-work, for which, by the advice of his physician, he sought relief from *massage*. While *massaging* him for that, more than once he called my attention to the thumb, fore and middle finger of the right hand, the fatigue of which from writing he was fond of designating writer's cramp, as it was only after several days' rest

* *Medical Electricity*, page 574.

† And *parenchymatous exudation* also, when it exists.—G.

that he could resume the use of his pen. On two such occasions, immediately after prolonged writing, I manipulated his hand and arm thoroughly, and the following day he could use his pen as freely as usual.

A middle-aged gentleman, of vigorous constitution, a lawyer in extensive practice, was frequently obliged to employ an amanuensis for several weeks in order to recover by rest the ability to use his pen. For the general weariness, at such times, when he could he had recourse to *massage*, and at two different times while treating him thus I gave the fingers, hand, and arm more thorough and special malaxation, with the result each time, after two sittings, of his being able the following day to resume his writing with ordinary ease.

Had these two cases not had the intelligence and the means to rest on the first note of warning, they would doubtless have become confirmed cases of writer's cramp. They are the only two of the kind in which I have had an opportunity to try *massage*. No objective symptoms were present, and as rest was indicated more than anything else, I did not trouble them with resisting or acto-passive motion.

Mr. B. is a gentleman of leisure, in fine health, and of unusual muscular vigor. His favorite pastime is music, and he is a skilful pianist, fond of playing the most difficult pieces; but for years the forefinger of the right hand has been a distressing bane to him, for without warning it will, as it were, *miss fire*, flex toward the palm without striking the key-note, and then he has to desist for the time, sometimes for several days. In one week I gave him three *massages* manipulation, percussion and acto-passive motion, but with no benefit, and I doubt if further treatment of the same kind would have been of any avail, as the finger, hand, and arm were perfect and powerful in every other respect. He had tried electricity, rest, and gymnastics.

Over-use of any group of muscles gives rise to similar disturbances, some of which may be relieved by *massage*, as the following cases will help to show. H. W., æt. 25, enjoys good health, and has strong muscles; by occupation a pianist and astronomer. For a year past, June 23, 1874, his wrists have been weak and lame, which he attributes in great part to the frequent and forced efforts required in elevating and changing the direction of his large telescope, which strains the extensors of his hands very much. He can play but fifteen or twenty minutes on his piano before his fingers and wrists give out from fatigue and ache. No visible or tangible defect could be found save a somewhat constrained, stiff-bent position of the fingers, making voluntary extension difficult and disagreeable.

The treatment for several months had been rubbing with liniments, and half-a-dozen layers of bandage wound around each wrist, without any improvement resulting. These were left off when *massage* was begun, June 23, 1874. The first four visits were devoted solely to manipulation of the fingers, hands, and arms. I find my notes quote Mr. W. as saying that his hands and arms felt stronger after the first handling. At the fifth and subsequent *massages* I added percussion and resisting motion to all the natural movements of the fingers, hands, and arms, but more particularly to *extension* of the fingers, and of the hands on the forearms, and this was carefully kept within the limits of the patient's strength, so that at no time should he be made painfully conscious of his disability, as this would have frustrated the object of the treatment. In thirteen days from his first visit to me he had eight massages, at the end of which time I again find my notes quote him as saying that "if any one had told him that his wrists and hands could have been made so much stronger as they now were in so short a time, he would not have believed them." He could then elevate and move his telescope about with ease, and play on his piano for an hour at a time before fatigue came on. Massage was continued for a few weeks longer, and the patient got quite well, so that he could use his upper extremities *ad libitum* for any mortal length of time. He has continued well, and for his scientific attainments he has recently been employed by the United States government in a situation requiring a man physically perfect.

Dr. F. E. Corey, of Westboro', Mass., very kindly sent me the following interesting account of a case of over-use of the muscles which move the humerus backward and upward, which he treated successfully with massage:

Mr. D. C. B, æt. 66, by occupation a cutter of leather for boots; has worked at this business a long time, following a pattern with his knife by just the same motion day after day. Previous to my acquaintance he has had attacks of lameness in the right shoulder, which have obliged him to discontinue work for weeks at a time. The lameness for which I treated him commenced last winter by a slight pain on making the cutting motion, and it slowly increased in severity until the movement could no longer be made without a degree of pain which led to the discontinuance of his work.

March 23, 1875, he called at my office, and I found that the posterior fibres of the deltoid and the external head of the triceps were considerably rigid and tender on pressure, and the pain of motion was referred mainly to them, though at times the teres muscles seemed to be involved. I began the *massage* that day, working in the direction of the fibres involved. After about an hour's manipulation my patient declared he could move the arm better than before, and expressed the belief that this was the proper treatment for him. For about a week I applied the treatment every day, always with the assurance of progress from the patient. After this the application was made at longer intervals until the 19th of April, when my patient could discover no traces of his lameness, being able to carry the arm in every direction without pain. There has been no return of the trouble up to this date, August 11, 1875.

In two weeks from the commencement of treatment he returned to his work, before he was entirely well.

Deaths from Chloroform.—Two deaths from chloroform have been recently reported in the London journals. One occurred during an attempted reduction of an inguinal hernia, at the Peterborough Infirmary—the other at the University College Hospital. The last case was that of a woman for whom ligature of the carotid was to be performed for an aneurism of the aorta. The patient suddenly ceased to breathe when laryngotomy was performed. The left innominate vein, as was afterwards discovered, being occluded, some veins crossing the larynx were much dilated. These were unavoidedly wounded in the operation, a quantity of blood entered the air-passages, and although it was promptly sucked out, the delay was fatal. The patient had taken but little chloroform when the obstruction to respiration occurred. In neither case is there any report of a post-mortem examination.

Progress of Medical Science.

On the Filaria Hæmatica.—MM. Galeb and Pourquier have recently set on foot a series of investigations in the hope of clearing up the mode of origin of the nematoid worms in the blood of dogs. Among the autopsies performed with this end was that of a bitch with pup, whose heart was found crammed with adult filaria. The examination of the blood of this dog revealed, as is usual, the presence of thousands of the embryos of filaria. To the great astonishment of the investigators, however, the examination of the blood of the fœtus also revealed the presence of many of these embryos. This important observation, in their opinion, demonstrates that the embryos of the filaria, which swim about in the blood of the bitch and are provided with a delicate, pointed extremity, are able to pierce the tissues of the uterus and make their way into the fœtal placenta, whence they are swept away by the sanguineous current of the fœtus. This explanation, founded upon a positive observation, destroys completely the theory of a verminous diathesis and of spontaneous generation, by which it has been hitherto sought to explain the genesis of these hæmatozoa.

C. Davaine, in his *Traité des Entozoaires*, says that the nematoid worms, which circulate in all the vessels of certain dogs, are probably the larvæ of the filaria hæmatica. MM. Galeb and Pourquier say that there can no longer be any question of this. When, after a careful dissection, a microscopical examination of the genital apparatus of the adult female of the filaria hæmatica is made, it is easy to follow the development of the egg and the embryo in the ovary; free embryos, perfectly similar to those which circulate in the blood, are always found in the oviducts. The female of the filaria hæmatica is therefore viviparous. It is the belief of these observers that the embryos are never found in the blood of dogs, unless adult filaria be at the same time present in the right cavities of the heart or in the pulmonary artery. Hence the diagnosis of the latter may be made during life from the examination of a drop of the blood.

The female of the filaria may attain a length of twelve and a half inches. The male is smaller and more delicate; it may be six inches in length. More than a hundred may be present in the same animal. Frequently they cause no symptoms at all; sometimes the symptoms are intermittent, and in other cases they cause dropsies or other affections which prove fatal.—*Gazette Médicale de Paris*, February 24th.

A Case of Spinal Paralysis in an Adult.—Dr. Tripier, at a recent meeting of the *Société de Sciences Médicales*, presented a man, aged 48, who had always enjoyed excellent health previous to August, 1875, when he was suddenly and without apparent cause seized with paralysis of both lower limbs, accompanied by severe pains in the buttocks, thighs, calves, and feet, and for two days also in the nape of the neck. The bladder and rectum were not affected. The pains after a time became less severe in the right leg, and at the end of three months disappeared entirely from both legs. At this time the power of movement began to return in the right leg, and progressively improved until the time of his presentation to the Society. The paralysis of the left leg, however, persisted, and the entire limb became flaccid and rapidly atrophied. The patient is now utterly unable to move the thigh upon the pelvis, or the leg upon the thigh, but is able to move slightly the third and fourth toes. All the passive movements can be made, with the exception of complete flexion of the leg upon the thigh. When the thigh is extended the leg cannot be flexed on it beyond an angle of 90°; when an attempt is made to increase this flexion, a marked resistance is felt, and the patient complains of severe pain in the knee. No contractions are produced in the affected limb by galvanic currents, but the electric sensibility of the skin is perfectly retained. For the rest the sensibility to touch, cold, heat, and pain are intact. Tickling the soles of the foot causes only slight movements of the third and fourth toes. When covered, the two legs are equally warm, but when exposed to the air the paralyzed limb becomes colder than the other. When in the vertical position, the skin of this limb assumes a violet tinge, which disappears as soon as the horizontal position is resumed. Micturition is always easy, and the bowels are regular. There are no eschars nor traces of cutaneous lesions. The other limbs are perfectly normal. The intelligence and the organs of sense are intact, and the thoracic and abdominal organs are sound.

The diagnosis of this case is plain. It is evidently an instance of the affection described first by Duchenne, under the name of acute anterior spinal paralysis of the adult. The identity of the malady with the paralysis of infancy has been positively proved by a case observed by MM. Charcot and Gombault, on which an autopsy was held. Fifteen cases of the affection have already been reported.

An interesting fact in this case is the persistence of the power of movement in two of the toes. A localization of the paralysis in certain groups of muscles is sometimes characteristic of the disease in question, and it is fair to assume that a persistence of the power of movement in a few isolated muscles of a paralyzed limb is not less characteristic. The impossibility of flexing the leg completely is a symptom which has never been noticed in any other case, either in children or in adults. Usually the mobility of the articulations of the affected limb is perfect, and, in fact, the ligaments are supposed to be generally more lax than in the normal state. In this case there is no inflammation or swelling of the knee-joint to account for the impaired mobility. It is probably due to a hyperplasia of the myolemma of the triceps, although the tissue of the muscle has undergone a granulo-fatty degeneration, and has perhaps entirely disappeared. M. Charcot has met with this hyperplasia in cases of long-standing atrophy, and MM. Wolkmann and Steudner have found it in all stages of the disease. An autopsy, however, is necessary to settle this point.—*Lyon Médical*, February 25th.

Remedy for Asthma.—Dr. George H. Stone, of Savannah, Ga., writes as follows: "The following prescription has proved of great value to me in the treatment of asthma. Given in the paroxysm it invariably shortens and very much modifies the severity of the attack.

℞. Muriatic acid dil ..... f. ʒ i.
Syrup. simp. ..... f. ʒ i.
Aquæ puræ ..... f. ʒ v.

"M. S. Tablespoonful every fifteen minutes until relief."

Capt. Lahrbush, the veteran opium inebriate, of whose life a short sketch was given in a recent number, died April 3, 1877. In a future issue, we shall give the results of the post-mortem examination.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE PRIZE ESSAY SYSTEM.

It is a noteworthy fact that the prizes offered by the various medical associations throughout the country fail to draw out the best talent of the profession, or at least those well elaborated experiences that are justly held to have the very highest value. We have no lack of excellent papers, but their authors seem to think that they will be better rewarded in reading them before this or that congress or association, subsequently to be published in its annals or transactions, rather than by trusting them to the tender mercies of a prize committee, with the privilege, perhaps, if successful, of paying to have them published. It is certain that our prizes do not attract the attention which they should, for, apart from the monetary consideration, the honor of being a successful contestant should go far towards compensating the author for whatever time, labor, or expense he may have devoted to his subject. As the matter stands now, the arena is mostly abandoned to the younger members of the profession, many of whom are only beginning to make themselves known in the medical world. In Europe, matters are quite different, and we often find in the honor lists names that have long been favorably known in medicine, perhaps those of professors in well-established schools, and, indeed, even some of our own countrymen who have reached eminence among us. It has been said that the honorarium is too small in this country, and that if we should increase the amount, so as to equal the great prizes, of Paris, for example, we should have competitors enough. This may turn out to be true, but the experiences of some of our prize committees would not show it. In some known instances, for example, where a special prize has for certain reasons been increased in amount, the competition has been no more active than before; in fact, it has occurred that the larger prizes have not unfrequently been withheld altogether, when an award would have been made had the amount been smaller, the quality of the competing essays not reaching the standard required for the special sum offered. We will do well to inquire into these matters and see if there are not other reasons that may hinder some from entering the lists.

Perhaps the following incident will illustrate what may sometimes happen: Some years ago an essay was sent by a medical gentleman to a distant town, to be entered for the annual prize of the association, a sum of moderate value. In due time the article was returned with the remark, in an accompanying note, written to a friend who had sent it, that it would probably have taken the prize, but the committee were not certain of its originality. The essay subsequently took a prize of much greater pecuniary value, was published, and has since been extensively and favorably quoted in various foreign journals, as evidencing a very large amount of original work. But one can well imagine the mortification of the unhappy writer in having the results of his work of months, or perhaps years, returned to him with the statement that the committee were uncertain on the question of originality. Did it occur to the committee that they may have had the same doubt about the merits of any other production that was strictly new and unhackneyed?

The question of originality is one that no committee can determine absolutely, for the work may have been done by another than the apparent author, who may, perhaps, have derived all his "novelties" from some unpublished foreign thesis, or have come into possession of it in any other equally nefarious way. This question, however, the committee have no right to decide, as they have no business to assume it to be other than origina. in the absence of facts.

Their duty is to know whether or not it is an original production, judged by the ordinary standards, which are probably correct in ninety-nine cases out of a hundred, and are sufficiently so to enable those *littérateurs* who keep themselves *en rapport* with the progress of the special branches of medicine, to say at once This is or is not new. We venture to say that we have in this country a goodly number of men who would be generally recognized as so thoroughly conversant with the literature of the times, that it could be hardly possible to palm off anything on them that was not original, and were any committee-man to have his doubts on the subject of originality, it is clearly his duty to call in one or more of such experts. The practice of medicine has of late years been so subdivided, and each little corner has been so faithfully tilled, that the ordinary practitioner cannot expect to be versed in the literature of every branch; in fact, it is almost as much as any ordinary man can do to keep himself up with one or two of the minor specialties, and attend to his practice at the same time. Nor is it an act of humiliation on the part of the ordinary prac-

titioner to make an acknowledgment of his ignorance of certain branches; in fact, his candor should oblige him to do so when he is placed in a judicial capacity, and he should not hesitate for a moment to submit his papers to those whom he knows have the requisite knowledge. Statements of uncertainty as to originality on the part of prize committee-men cannot but have a very harmful influence on the competitor, who sees that his only chance of success lies within the narrow sphere, perchance, of the committee's information. One of the first things to be done in this direction is the appointment of the very best possible committee. The post should be of the highest honor, for they are judges standing in a position to decide all claims of excellence, and they should, therefore, be men of general knowledge, delicate discrimination, and strict conscientiousness. If, however, with the use of all these qualities, an improper person succeed in securing a prize, and it is conceivable that such accidents may occur, he stands a still further chance of conviction in the public prints, in which a production worthy of any such prize should be published by compulsion. There is no safeguard so trustworthy as this, for the committee who now inquire into the merits of his work will be augmented to the extent of the circulation of the article, and there will always be some one to remind the author of the precise claims he has upon others, and the amount of his personal contributions.

He would be an extraordinary man, indeed, who at the present day could succeed in cajoling the public into believing that he was guilty of originality when he was not Nowadays, the merest item of novelty is paraded in the public prints, and is duly labelled and chronicled as such, as it passes from one country to another, whether it occur in an elaborate "Opening Address," a "Thèse pour le Doctorat," an "Inaugural dissertation," or the "Preliminary Notice" of some half-fledged student who, after a few weeks' of study in a laboratory, fancies he has made a discovery.

As to the question of publishing a prize essay, the expense should surely not be borne by the contestant. As the case now stands, if the article were not of immoderate length, and contained but few illustrations, the medical journals would gladly publish it gratis; but there are instances where an article, however good, would be too long, or would require too many illustrations, and the expense of publishing, as a separate production, would be very great. And yet few committees would think of making restrictions as to length or number of illustrations. In such cases clearly, the association should publish it at their own expense, having it understood in their announcement of the prize, that they will only accept articles of a definite number of pages, and will only be answerable for a moderate and definite outlay in providing for the illustrations, if there should be any. There is no doubt that many compete for prizes simply or chiefly for the monetary consideration, and to force them to publish at their own expense might, indeed, not only rob the unfortunate of all his hard-earned money, but actually put him to additional expense; under such circumstances, we should hardly wonder if competitors were few.

There is another point upon which a good deal is said. The committee, it is usually understood, should have no clue to the authors; indeed, it is distinctly stated by the medical committee having in charge the Boylston Medical Prize that "any clue by which the authorship of a dissertation is made known to the committee will debar such dissertation from competition." In many of the other prize announcements distinct statements are made on this point. At first sight it would appear that this provisional clause is designed to do away with any chance of favoritism, which, perhaps, exerts more influence than we would be willing to acknowledge; on the other hand, there is little doubt but that it tends to narrow the contesting sphere. Good, original work—and this is usually held by all committees to have the first rank—is most apt to be done by specialists in some department, and the relation of cases, or the method pursued, would often show where the man had obtained his training, where he had been working, and finally, in many cases, one would almost know who he was. In fact, in a very large number of instances, it would almost be impossible to conceal from the knowing ones the identity of the man.

This difficulty would, of course, increase with the completeness of the work. Were, on the other hand, names, places, and incidents suppressed in such a way as to effectually screen the author, there would be no opportunity to verify the facts, and they would, in the committee's eyes, appear less weighty. Practically it ought not be a matter of prime importance to demand that the author should so screen himself as to entirely conceal his identity. The committee should feel able, and be regarded as able, to decide upon the merits of the production apart from any personal considerations.

Any one who thinks for a moment would soon see that our practising physicians, who have long been known in connection with certain specialties, could not give their experiences without the greatest danger of detection.

It is also a matter of the first importance for an association to define clearly what they regard as the height of excellence in a prize essay. We often hear it stated by persons that they wonder what standard the committee will adopt. There should be no doubt or misapprehension on this point. It is universally conceded that original research ranks highest, though it must be based upon a thorough and critical knowledge of what has been done in the same field by others.

The question of originality with some appears to presuppose that a man is to have a laboratory or some other facilities for the pursuit of his study, as a hos-

pital connection or its advantages, as if he had to be a chemist, experimental physiologist, or pathologist. But this is a mistake. Original researches can be just as well carried out in the parlor, office, or the kitchen, and with every degree of success, provided only that the student, commencing with a full understanding of his subject at the point where he is to take it up, has the facilities in his parlor or kitchen for elaborating new principles, and upsetting or re-establishing old ones. This he may do by the careful and systematic arrangement of any cases which have come under his observation, where by taking account of certain groups of symptoms, perhaps not heretofore recognized in the way that he has studied them, he makes them yield definite results. If such conclusions have a very important bearing on the ordinary practice of medicine, their value will be proportionately enhanced.

The student may turn his attention to chemistry, physiology, or pathology, though in each and every department of medicine he will find room for original research. He does not need always to invent new methods. He may pursue old ones, noting his results, and they will be original so long as he does them himself, and classifies and analyses them himself. Negative results are often as valuable as positive ones, and though it is difficult to go over any question, even the oldest, without developing some new point, failure may even take place in this, and yet the sum of his negative results will be of more value than the discovery of a single positive fact of minor importance.

These matters call for the serious consideration of our various medical associations, and if some clearer understanding can be reached upon them it will be better for the associations, committee, and contestants.

EDITORIAL PUFFING.

Generally speaking, when medical journals claim to refrain from puffing advertisers, they mean what they say, and try to accord their practice with their precept. Occasionally, however, the voice of the tempter is too strong, and they are bought with the price of a puff. An enterprising firm of pharmacists of Boston has recently been successful in this way with some of the most respectable journals in this and other cities. As a strictly business arrangement on the part of the firm it is good enough; but what can we say for such "independent" journals who are bought with such a price? From personal experience with the repeated overtures from this particular firm, we assert that they never advertise on any other condition, and that consequently the appearance of an editorial notice in every journal in which the advertisement appears is by no means a coincidence.

ABUSE OF MEDICAL CHARITY.

Now that the profession is so much exercised in the matter of medical charity, it seems to us a good opportunity for initiating necessary reforms. The coming conference of officers of dispensaries, at the instance of the Public Health Association, should give this subject a most thorough investigation. There is no doubt that ample opportunity will be given for every one interested to express an opinion. From the present outlook it seems as if there is but one necessity, and that is, the correction of these abuses in some way or another. Whether the provident system will meet the end desired is quite doubtful; but the agitation which the subject may receive in consequence of the efforts to establish this scheme will no doubt be productive of great good. We hope that the representatives of the colleges will not be left out, but that they may be called upon to explain why such gross abuses exist in connection with clinical instruction in this city. We are well aware that medical students must have clinical material, and we are equally impressed with the fact that young practitioners should not be cheated out of their legitimate fees.

LENGTHENING THE LECTURE TERM.

The friends of the University of Michigan, and of medical education generally, will be glad to learn that that institution has decided to lengthen its lecture term to nine months. From what we can understand, there is to be a gradation of studies similar to that now in operation at Harvard. Although the extension of the lecture term will begin with the next session, two years' notice of the permanent change will probably be given, so as not to work any discrimination against students who have already begun study. Any who may begin after next term will possibly be required to adopt the three-year course. The advanced stand taken by this school is of special significance. It proves that, despite its recent troubles with Homœopathy, it is able to rise stronger than ever and lead the van of true progress in the West. The profession will unite with us in giving it its hearty endorsement for the measure adopted.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, March 26, 1877.

Dr. John C. Peters, President, in the Chair.

THE STRUMOUS ELEMENT IN THE ETIOLOGY OF JOINT DISEASES—ANALYSIS OF 860 CASES.

Dr. V. P. Gibney read a valuable paper upon the above subject. The following is a brief synopsis: It was believed that the synonymous meaning of the terms struma and scrofula was generally conceded. Reference was made to definitions of the peculiar condition by various writers, and that given by Haward, in the fourth volume of St. George's Hospital Reports, was adopted: "Scrofula is a disease of children which manifests itself by a peculiar vulnerability and proneness of the subject to chronic inflammation of mucous membranes and skin, of the lymphatic system and bones, which inflammations are characterized by

great pertinacity, and the products of which have a retrograde tendency." The definition was supplemented by that given by Prince, in his pamphlet entitled, "Considerations in Relation to Diseases of the Joints." (Reprint from the *American Practitioner* for Feb., 1877.) He described a condition which might be "inherited and permanent, acquired and permanent, or acquired and temporary."

Dr. Gibney recognized as a factor in the production of a certain proportion of diseases of the joints, that element which had been described under the name struma or scrofula, and gave an analysis of 860 cases. The analysis was made with special reference to the two prominent theories regarding the etiology of joint diseases, namely, traumatism and non-traumatism. Caries of the vertebræ was included among diseases of the joints. Most of the histories of the cases had been taken by men thoroughly imbued with the doctrine that traumatism was at the foundation of a large percentage of this class of affections.

Of the 860 cases no statement had been recorded with reference to the existing cause in 28.

In 252 cases there was record of a fall or other injury to account for the disease. There were 97 cases in which there was reasonable doubt regarding the relation of cause and effect between the injury and the arthritic disease. Such doubt was based upon the length of time that intervened between the receipt of the injury and the development of the disease. Dr. Gibney, therefore, retained the original number, 252, as cases in which traumatism was recorded as a cause of the joint disease.

Excluding the cases in which no record was made with reference to traumatism, and then deducting from the remaining number the cases which were doubtful, together with those which were retained as due to some injury, namely, 97+252, there remained 483, in which no history of a traumatic cause, such as a blow, or fall, or other injury could be traced.

FACTS BEARING ON THE QUESTION OF SEX AS A FACTOR IN THE DEVELOPMENT OF JOINT DISEASES.

Some facts were presented in relation to the above question, inasmuch as many had based arguments on the preponderance of the male or the female sex to sustain one or other of the two theories. The argument had been that females were by nature weaker, lead more of an indoor life, and were less exposed to injuries than males, and that because more boys than girls had joint disease, the cause was traumatic, and not constitutional. It was believed that statistics did not furnish exhaustive testimony upon that point. The following were given: Of 4,871 cases of various joint diseases which had been recorded at the hospital, 2,613 were males and 2,258 females.

PARALYSIS.

No class of children sustained more falls than paralytics, and they were generally neglected after receiving such exposure to injuries. Yet, out of 4,140 cases belonging to that class and examined at the hospital, only 4 had been complicated with joint disease.

That fact was offered as a topic for discussion.

AGE.

Of the 4,871 cases of joint disease already mentioned, 4,140 were under 14 years of age, 4,111 between 14 and 21, and 320 over 21 years of age.

Of the 860 cases of joint disease embraced in the doctor's own analysis, 3 were developed prior to 6 months of age, 41 before the first year, 99 before 2 years old, 559 before 5 years of age, 719 before 10 years of age, and 97 subsequent to 10 years of age. The youngest was two weeks old, and was a case of synovitis of the shoulder-joint; the oldest was 58 years of age, and was a case of hip-joint disease.

DIATHESIS—HEREDITARY AND ACQUIRED.

Under this head were included in the study such diseases as had been actually existing, and which might account for any morbid condition capable of producing the lesions under consideration.

DISEASE OF THE SPINE.

The family history had been traced in 51 cases in which traumatism had been assigned as a cause, and evidence of transmissibility had been found 46 times, or 92 per cent. In 27 cases nothing was found which was regarded as predisposing to strumous diathesis; in 32 note was not made. Total, 110. In 78 non-traumatic cases there was evidence of transmissibility in 65, or 87 per cent.; family history not obtained in 68. In 23 cases no hereditary taint was found. Total, 169. With reference to *acquired* diathesis, such as might arise from the various diseases of infancy and childhood, it was found that in 72 traumatic cases 9 had followed some of the diseases indicated, which disease could have been the cause of the joint disease.

Of 123 non-traumatic cases, evidence of an acquired diathesis had been found in 41, or 33 per cent.

Among the traumatic cases, 8 were found with both hereditary and acquired diatheses, and among the non-traumatic, 32 were found with both diatheses.

HIP-JOINT DISEASE.

Of 353 cases taken from the 860 analyzed, 183 occurred in females, and 170 occurred in males.

Of the 152 assigned to traumatism, 84 were males, and 68 females.

Of the 195 non-traumatic cases, 81 were males, and 114 females.

ANALYSIS WITH REFERENCE TO DIATHESIS.

In 135 traumatic cases, there was evidence of hereditary strumous diathesis in 77. In 20 no note upon that point had been made.

In 139 non traumatic cases, 72 gave similar evidence, and the condition was not recorded in 59.

In 126 traumatic cases, noted with reference to condition produced by other diseases, 5 were recorded as having both a hereditary predisposition and acquired cachexia.

In 146 non-traumatic cases there were 32 which gave histories of both hereditary and acquired diatheses.

SYNOVITIS.

Of the whole number of cases (860) there were 140 of synovitis. Of those, the disease occurred 78 times in males, and 62 in females. There were 60 traumatic cases, 70 non-traumatic, and in 4 it was not ascertained.

In 51 traumatic cases inquiry had been made with reference to family diseases, and in 33 there was found some evidence of hereditary diathesis.

In 54 non-traumatic cases the same inquiry had been made, and in 30 the family history was found to be unfavorable.

ANKLE-JOINT DISEASE.

Total number of cases 50. Of those 23 were traumatic. Of that number note had been made with reference to hereditary taint in 13, and evidence had been found in 7.

In 15 non-traumatic cases (total number 25) 9 gave evidence of hereditary taint. Two cases were recorded as neutral.

RATE OF MORTALITY.

Of the 288 cases of *hip-joint disease*, in 4¼ per centage death occurred from exhaustion; 4¼ per centum

died in consequence of amyloid degeneration; 1¾ per cent. from tubercular meningitis, and 1¾ per cent. from other diseases.

Of the 128 cases of *spinal disease*, 10$\frac{5}{16}$ per cent. died from exhaustion; 5½ per cent. from amyloid degeneration; and 2½ per cent. from tubercular meningitis; and 2½ per cent. from other diseases.

Of the 106 cases of *knee-joint disease*, death from exhaustion occurred in 7½ percentage of the cases; from amyloid degeneration in 2 per cent.; and in 2 per cent. from tubercular meningitis.

Of the 23 cases of *ankle-joint disease*, 8¾ per cent. died from exhaustion, and 9 per cent. from amyloid degeneration.

The percentage of death in the whole number of cases (545) was 6¾ from exhaustion; 4$\frac{1}{17}$ from amyloid degeneration; 1¾ from tubercular meningitis; 10¾ from the first two combined; 12¾ from the three combined; and 1½ from other diseases.

STRUMOUS DIATHESIS DEVELOPED BY JOINT DISEASE.

It had been maintained by Sayre, Holmes, and others, that strumous diathesis might be developed by joint disease, and for the purpose of obtaining some evidence upon that question, an analysis of 320 cases had been made. Of these cases none had been under observation less than six months, and from that to six years.

In 136 cases the strumous diathesis developed while under treatment for the joint disease.

In 184 strumous manifestations, apart from the joint disease itself, were not developed in any portion of the body.

In conclusion, reference was made to the

SCORBUTIC DIATHESIS IN CONTRADISTINCTION TO THE SCROFULOUS.

The paper being open to discussion, Dr. Frank H. Hamilton remarked that, so far as his opinion went, it was in accord with the inference made by Dr. Gibney with reference to struma being a fruitful source of hip-joint disease. The term struma, however, had always had a wide signification, and, as time had progressed, its meaning had seemed to be expanding. Scrofula and tuberculosis had been regarded as synonymous, but precisely what tuberculosis was had not been determined. Dr. Hamilton described struma by its phenomena; the strumous patient, like a plant growing in a cellar, succulent and prone to early decay, was exceedingly liable to disease. The child was born being the possessor of a peculiar condition, or the early experience in life favored the development of a peculiar condition which rendered him exceedingly fragile; he was liable to maladies of all kinds. In infancy the condition manifested itself by tegumentary eruptions, such as were seen upon the face, head, behind the ears, etc. As the child advanced in life the condition manifested itself in other structures, and more especially the mucous membranes, and he suffered from various catarrhal affections.

Still later in life the condition manifested itself in disturbances of the lymphatic system, and finally, in all probability, as tuberculosis of the lungs and other structures of the body. That was what he supposed was meant by the term "strumous diathesis." It was a peculiar condition, not susceptible of exact definition, but such an one as rendered the system exceedingly fragile. It was the condition which was a prolific source of many diseases, especially chronic maladies. The vast majority of chronic maladies, and many of the acute, in all probability depended upon constitutional fault. Now, what reason was there to suppose that such condition might not affect the joints of the body, and produce maladies there with as great frequency as elsewhere in the body? There were certain constitutional maladies which had assailed the joints—for example, pyæmia—and had any one given a satisfactory reason why they did? In that instance we had an illustration of a constitutional malady producing a local disease, manifesting a preference for a local habitation, selecting a special part of the body to attack. Syphilitic disease by preference attacked certain parts of the body, and yet no one had given the reason why. Dr. Hamilton wished to be understood as holding to the opinion that chronic local maladies, as a rule, were associated with, and had as a cause which led to a persistence of the malady, some constitutional fault. Why should the affections under consideration, those local maladies, constitute an exception? As an argument upon the opposite side, it had been urged that the joint disease did not occur except after a certain period of life; not until the child began to walk, and when he became exposed to unusual accidents. That was unquestionably true, and the argument had weight. The local disease preferred those periods of life in which traumatism was most active. But, on the other hand, constitutional maladies had always shown preference for certain periods of life for the development of certain difficulties. In infancy the strumous element might manifest itself in phlyctenular affection of the eyes; a little later in nasal catarrh and conjunctivitis; still later in disturbances of the lymphatic glands of the neck, and ultimately the lungs and other parts of the body. The same tendency on the part of constitutional diseases to prefer certain structures of the body at certain periods of life, was so manifest that a great deal of the force of the argument in favor of the proposition that joint diseases were essentially local affections was removed. No good reason could be shown why a constitutional fault might not exhibit a preference for the joints at certain periods of life. That was the line of argument naturally suggested and which left the responsibility upon constitutional conditions, but which did not exclude traumatic influence. The real difference of opinion between Dr. Sayre and himself, relating to the etiology of joint diseases, if any difference existed, was simply a difference with reference to the degree or extent in which the two agents, constitutional condition and traumatic influence, were responsible for those results. Dr. Hamilton inclined to the opinion that joint disease had its origin in traumatism more frequently than the results of the analysis made by Dr. Gibney seemed to show. Dr. Hamilton reached the conclusion that a person receiving an injury about a joint at any period of life would recover much more promptly and certainly if he had a good constitution than if suffering from some dyscrasia. In many cases the injury persisted and the constitutional cause must be considered as dominant. A great majority of cases, in some sense, had a traumatic origin. Nearly all cases of joint disease demanded constitutional treatment, but if the local disease became the preponderating condition, local treatment also would be required.

It had been urged that the local disease itself was capable of developing that very condition which had been called struma. The Doctor believed, however, that the real distinction to be borne in mind was how much weight should be given to constitutional causes and constitutional treatment, and how much to local causes and local treatment.

Dr. Lewis A. Sayre asked Dr. Hamilton whether he believed it to be possible for a person with a per-

fectly sound constitution to suffer from chronic joint disease.

Dr. Hamilton answered in the affirmative.

Dr. Sayre continued by saying that he was glad to know that Dr. Hamilton took that view of the question, for it was a view which he himself had long entertained. He had reached such conclusions from observing the facts relating to cases which had fallen under his observation. There should never have been any dispute regarding the power of constitutional dyscrasia and local injury in the production of joint diseases. The view which he held regarding traumatism in the production of diseases of the joints, was simply that an injury was capable of producing such disease in a perfectly healthy individual, and in such cases was the primary cause; and also that an injury would produce joint disease much more easily in a person suffering from struma, and was the starting-point of the disease in a very great majority of such cases. One reason why struma and joint diseases were seen so frequently in the same person was because a very slight injury—indeed, the slighter the more serious oftentimes, for the reason that it was not properly cared for—might develop the disease in the strumous subject, whereas the same amount of injury to a healthy person would be received without producing any bad effect whatever. The ridiculous statement had been made that he entertained the view that a person who had tuberculosis or struma, or was scrofulous, could not have hip disease, white swelling of the knee-joint, or Pott's disease. A great deal of the difference of opinion concerning the relative influence of constitutional and local causes in the production of diseases of the joints had grown out of the fact that some men would persist in misunderstanding him with reference to his real views upon the subject.

It was possible that another misunderstanding had occurred, judging from the doctrine which Dr. Gross, of Philadelphia, advanced before the Centennial Medical Congress, when discussing the plaster-of-Paris treatment for Pott's disease. Dr. Gross had taken the ground that it was absolutely impossible for any person to have genuine hip-joint disease without having inherited scrofula; in other words, there was always present a tuberculosis diathesis. It was for that reason that he asked Dr. Hamilton the question, and also believed that when Dr. Gross saw what he had said he would be willing to correct the extreme statement he had made.

Dr. Sayre then presented the following statistics, made from his private case books. They were based upon the fully recorded histories of 562 cases of chronic disease of the joints.

In 378 cases the disease was at the hip-joint; in 85 in the spine (Pott's disease), in 65 at the knee-joint, and in 34 at the ankle-joint.

GENERAL CONDITION OF THE PATIENT PREVIOUS TO THE DEVELOPMENT OF THE DISEASE.

Hip Disease.—In 242 cases the previous general condition was good, in 50 bad, and in 86 there was no record upon that point.

Disease of the Spine.—In 53 cases the previous general condition was good, in 9 bad, and in 23 no note had been made.

Knee-joint.—In 38 cases the previous general condition was good, in 17 bad, and in 10 unrecorded.

Ankle-joint.—In 17 cases the previous general condition was good, in 1 bad, and in 16 unrecorded.

Of the total number, 562 cases, the previous general condition was perfectly good in 350, was bad in 77, and in 135 was unrecorded.

Under the heading "bad" were included all cases in which the patient had parents who were in any way whatever affected by constitutional taint, although the patients, at the time of the receipt of the injury, were in perfectly good health.

Of the 378 cases of hip disease 265 had been traced distinctly to a traumatic origin. In 113 the joint affection had followed other diseases, such as dysentery, measles, typhoid fever, whooping-cough, scarlatina.

Of the 85 cases of Pott's disease 55 had had traumatic origin, and 30 had followed other diseases.

Of the 65 cases of chronic disease of the knee-joint 46 had originated in traumatism and 19 had followed other diseases.

Of the 34 cases of ankle-joint disease 25 were traumatic and 9 had followed other diseases.

Dr. Sayre believed it was shown by his own cases, and also by those noted by Dr. Gibney, that joint disease could be developed in persons who were in a perfectly healthy condition, and he hoped there was no man who was so silly as to deny that the joint disease could be developed by a much slighter exciting cause in a person having a tainted constitution than in one in perfect health. The previous condition was one of vast importance. A perfectly healthy man could receive an injury, perhaps a very severe injury, and soon get well; but the same injury received by a man debilitated by inheritance, or by certain surroundings, might, and probably would, develop serious disease.

With regard to the age at which joint diseases were most likely to occur, he had stated that it was during that period in life in which there was the greatest amount of exposure to injuries, namely, in childhood and early youth. During those periods in life a slight injury was more likely to develop severe results, because extravasations of blood took place more readily; the ligaments, tendons, and all the structures about the joints yielded to very slight strains and blows. There was difficulty in many cases in tracing out the traumatic cause, because the injury had been so slight as to pass unnoticed, the case was neglected, and not until months had elapsed, perhaps, was the true condition recognized. "The less hurt the worse off."

With regard to rupture of the ligamentum teres in dislocation not being followed by hip disease, it was to be remarked that the anatomical condition of the hip-joint was very different in childhood from that present in adult life. The vascularity of the extremities of the bones in the earlier periods of life was so much different from that found in adult life that the fact that morbus coxarius did not follow dislocation at the hip-joint in the adult could not be used as an argument against the doctrine that hip-joint disease had its origin in disturbances of the vascularity of the parts, perhaps much slighter in character, during childhood and early youth. In addition, a severe injury like the dislocation in the adult would be sufficient to attract attention, and measures would be resorted to for its cure, whereas the slight injury, producing slight extravasation in a highly vascular part, would be passed without attracting attention until inflammatory action had been established. With regard to the case of synovitis at the shoulder-joint in a child two weeks old, reported by Dr. Gibney, he was inclined to accept it with a reservation until the history could be obtained, and the question settled whether injury was not inflicted by the accoucheur at the time of delivery.

Dr. Knight believed that there was a primary pathological condition which was at the foundation

of joint diseases, but some slight accident might excite that condition into action and bring about an active local disease. Such pathological condition was not merely from hereditary predisposition, but might be brought about by any weakening indisposition of the system. In treatment, therefore, something more was required than mere local treatment. The children required proper hygienic management, proper nutrition, all of which he believed could be best directed in properly arranged hospitals.

Dr. Jacobi spoke concerning the definition of struma accepted by Dr. Gibney, namely, a certain vulnerability of the tissues in general, which showed itself in a peculiar disposition to chronic inflammation, occurring in the bones, in the skin, in the mucous membrane, in the lymphatic glands, and exhibited the peculiarity that, as a rule, the physician had to deal with chronic inflammation of several of those organs and tissues at the same time.

We hardly spoke of struma or scrofula, whichever term was preferred, when we had to deal simply with a number of glandular indurations. We spoke of scrofula only when we had chronic inflammation of the glands, complicated perhaps with bone disease, or chronic inflammation of the mucous membrane; and that chronic inflammation was characterized by the peculiar mode in which it progressed. There was no formation of new cellular tissue, as, for instance, in cirrhosis of the liver or lung, but there was, after a rapid formation of new cells, a rapid transformation of those newly formed cells into pus, and there was a repetition of those processes. That was what was meant by struma. Dr. Jacobi disliked the term scrofula, but did not object to it, inasmuch as it was so convenient. When he found chronic disease of the bones he was not prepared to say that it was a case of scrofula, unless it was complicated by another chronic inflammation. He believed that a number of those cases could be explained in a somewhat different manner, and also believed that Dr. Sayre in his last remark was in the channel which should be followed. Why was it that children were so much more frequently diseased than adults? Although, while such was the fact, it was known that diseases of children were much less likely to be complicated than diseases of adults. It certainly was true that diagnosis in children's diseases was much more simple than in diseases of adults, because there was no chronic disease of the various tissues and organs to render it complicated. A large number of diseases were what might truly be called developmental diseases. Everything which had a rapid physiological development, an active physiological function, was apt to become pathological. The pathological condition was simply an exaggeration of the physiological function. It was because of that fact that children in the first year of life were specially liable to diseases of the digestive organs. It was for the same reason that children under two years of age were specially liable to suffer from diseases of the respiratory organs; and therefore it was also that at certain times during infancy and child-life this or that organ would probably become affected. Convulsions, meningitis, and disease of the nervous system, as was known, occurred most frequently during that period of life in which there was the most rapid development of the cranium and brain. It was also known that while there was a tendency to skin diseases among children, those parts were particularly affected which were the most vascular, as, for example, the head and face, which were so commonly the seat of eczema. Now the principal diseases of infancy and childhood were diseases of nutrition or circulation, or both. Very frequently disease of nutrition was dependent only on the circulation, and therefore it was that just at such times as nutrition was most active and circulation was most powerful certain parts of the body were most frequently affected. The same was true regarding the bones as was true regarding the brain and cranium during the period of its most rapid development. It had become an established fact that they would suffer most in those parts in which the circulation was most rapid. Reference was not had to necrosis, where the bone died from sheer want of circulation, but it was a fact, confirmed by surgeons, that those parts of bone which had a rapid circulation of blood were most readily affected by disease. The upper portion of the femur was better supplied with blood-vessels than the lower portion. It was a peculiar fact that when we had to deal with bone disease in little children it was almost always an inflammation of the epiphyses. The younger the individual the softer the ossific tissue. We should not forget that when man was born there was only a single epiphysis in which there was a single point of ossification, and that was the lower epiphysis of the os femoris; all the others were soft tissues. In the same degree that the epiphyses ossified, the tendency to inflammation and suppuration of the bones generally would be diminished. Thus it was, for instance, with the head of the femur. We had seen, after birth, an immense epiphysis in which there was no point of ossification; a few years after, the neck became ossified, and the trochanter and head set each up as an epiphysis, and therefore inflammation and suppuration were of more frequent occurrence in the head and trochanter. Thus it was all through the body. The frequency of bone disease in the young was due to the fact that the bone was not only so much softer, but that it was developed very fast; there was a rapid physiological development, and by an exaggeration of the rapid physiological development it became pathological. That explained the larger majority of cases, even of those which were not complicated with inflammation of the lymphatic glands or mucous membranes.

Dr. Hamilton remarked that inasmuch as knee-joint disease was much more frequent than disease of the hip-joint, certainly of more frequent occurrence than disease of the elbow-joint, it could hardly be explained upon the ground of greater blood supply, for the blood-vessels diverged from the knee, and converged towards both the hip and elbow-joints. If Dr. Jacobi's argument was sound the elbow-joint should be the seat of disease the most frequently.

Dr. Jacobi remarked that the statistics of Dr. Sayre and also of Dr. Gibney had shown disease of the hip-joint to be much more frequent than disease of the knee-joint; perhaps in the ratio of one to five or six. With reference to the explanation to be given to the fact that disease of the knee-joint was more frequent than disease of the elbow-joint, it was to be remarked that what he had already said had reference to only a single factor. It should not be forgotten that the epiphyses of the elbow-joint were small in proportion to the size of the joint; they contained but a small amount of material; were no more than one-seventh or one-eighth of the weight of the epiphyses of the knee-joint, and the whole weight of the body resting on the knee-joints. Great facility was therefore given for constitutional disease to invade the knee-joint, not to speak of the great facility with which local disease could be developed there by injury from falls and otherwise.

Dr. Sayre remarked that he did not wish to be understood as claiming that no constitutional treatment should be given in joint disease, but he did re

gard open air and a nutritious diet as the very best that could be employed, and that those could be obtained better outside than inside of a hospital, however good the hospital might be. Local treatment placed the patients in such a condition as enabled them to obtain those essentials to healthy nutrition.

Dr. L. D. Bulkley suggested two questions: First, Did the progress of those cases of joint disease which were claimed to be strictly local differ from those which were acknowledged to be of constitutional origin? Second, Had the influence of the rheumatic or gouty diathesis upon joint diseases been observed?

Dr. Sayre answered the first question by saying that there was a marked difference; for those who were healthy, and descended from healthy parents, recovered rapidly, while those who had a constitutional taint get along very badly.

Dr. Ripley raised the point with reference to the frequency of hip-joint disease, as shown by the tables presented by Drs. Sayre and Gibney, that Dr. Sayre was a recognized specialist upon hip-joint disease, and therefore a proportionately greater number of cases came to him than to the general practitioner. The same was true with regard to the hospital with which Dr. Gibney was connected. As far as Dr. Ripley's experience went, he had found knee and ankle-joint disease much more frequent than hip-joint disease; perhaps in the ratio of ten to one, and believed that his observations would be corroborated by the general practitioner.

With regard to developmental diseases, such as measles, etc., Dr. Ripley believed they were such to a great extent, because they were contagious, and the children contracted them before they were grown up. In certain places, for example, the Fiji Islands, where the measles had not been known, the entire population was affected when the disease was carried among the people; and it seemed to him that that class of diseases developed because they were developed by contagion. They were contagious diseases, and developed in all who were attacked by them.

Dr. Jacobi thought he had made himself clear as to what he meant by developmental diseases. The diseases he included under that head were diseases of the growing body, and he had simply appropriated the term developmental because he supposed that it would be understood.

NEW URETHRAL INSTRUMENTS.

Dr. H. G. Piffard, at the close of the discussion upon Dr. Gibney's paper, exhibited new urethral instruments, as follows: a meatometer; fossal sounds; fossal bougies à boules; ivory meatoscopes; and fossal urethrotome.

All of the instruments were 5 centimetres (2 inches) in length. The sounds were conical through four numbers of the American scale; a set of six running from No. 10 to No. 24. The meatometer was conical through ten numbers—from No. 11 to 20—with a line at each number.

The meatoscopes had been made of ivory, because it was believed that particles of dirt could be much more easily recognized upon them than upon hard rubber.

The instruments had been made short because it was believed that they could be much easier handled, both by surgeon and patient, than those having the ordinary length, and also could be more easily carried. Accompanying the instruments was a tape measure divided into millimetres.

The set seemed complete and well adapted to the treatment of strictures in the anterior portion of the male urethra. They were thought to have a special value over the instruments in common use in the treatment of affections of the urethra of the female.

The Society then adjourned.

Correspondence.

ENDOWMENT OF MEDICAL COLLEGES.

To the Editor of The Medical Record.

Sir:—I received this morning a circular from the Alumni Association of the College of Physicians and Surgeons, asking for contributions to a *fund* which is to be applied to increasing the educational advantages of the College. The paper sets forth the amount desired to be raised (viz., $250,000), the name and address of the treasurer, the trustees of the Association, but not the important fact who is to have the custody of this fund, and its subsequent application. It does not give the information whether a special professorship is to be endowed, or all the present ones aided. In fact, the composition of the petition and statement is vague, rambling, and without definite point, apparently indicating some concealed purpose. I hope it may be in your power to illuminate that document, and thereby benefit our Alma Mater. No doubt there are many Alumni who would like to give, in some proper way, aid to the institution in its efforts to reach a higher plane, and by this means advance the science and art of medicine and surgery; but they require to know more definitely the plan to be pursued, whether this fund is to be merged into the general fund of the College or kept for special use, also what voice the Association will retain in controlling the use of the fund.

The only concession of authority the College at first allowed the Association was, that the President of the Alumni Association might be an ex-officio member of the Board of Trustees. Has the College authority since been more liberal? This was, we know, thought so inconsiderable by the Alumni, and reasonably too, compared with the liberal proposal, that contributions at once ceased to be sent in, and the life of the enterprise became extinct. Unless the powers that be show more liberality to their generous supporters, newness of life cannot be expected. The case will be even worse than if the matter had never been projected, for support will be refused as well, in all probability. Money certainly will be withheld and the fund remain a mere nucleus. Perhaps, though, some expiring members of the Board of Trustees or Faculty who have attained both riches and honors from the Institution may graciously acknowledge their obligations by commendable checks or bequests to complete the fund, but this can hardly be expected if we are to judge of the future by the past. Have the kindness, in behalf of the Alumni, to answer through your journal promptly.

Yours,
Alumnus.

THE SMALL-FEE SYSTEM.

To the Editor of The Medical Record.

Sir:—I have read with some interest your recent editorials and the letters that have appeared in the Record in regard to the action of the New York Hospital Dispensary. It seems to me that so far the system which this institution has inaugurated has not been fairly considered, and that the attacks begun by

yourself and your correspondents are too much of a personal character, while what is needed is an unprejudiced statement of the possible benefits or evils of such a step. Such a discussion would occupy too much of your valuable space, but I simply wish to call attention to the reforms which such a system of Provident Dispensaries would bring about.

At present the poor and middle classes, which, it is claimed, are those who form the *clientèle* of the medical men who are to be injured by the small-fee system, do not always go immediately to the doctor when ill, and this person is not called in until the individual becomes quite ill, or unless the case is one of a surgical nature.

We may take the case of John A., who is a mechanic, has four children and a wife to support, and earns two dollars a day. John A. may catch cold and have rheumatism as a consequence. He at first tries domestic remedies, or goes to the corner druggist for a prescription. These do him no good; so upon recommendation of some friend he buys a bottle of "Liver Invigorator," or "Kidney Persuader," and may next seek the electrician, herb doctor, or some other well-advertised individual. John A. is not the only one of this class; others try clairvoyants, cancer doctors, hydropaths, manipulators, electric bathers, *ad infinitum*, preferring to pay very small fees for proprietary medicines, or to impoverish themselves by going to the quacks.

Then, again, there are a large proportion of the inhabitants of large cities who have only the tin sign of the doctor to judge that person's standing by, and as there are a great many tin signs which adorn the outer walls of both the ignorant and the wise, it is not strange that the poor patient may become, after a discouraging experience, rather "disgusted with doctors."

For these people the Provident Dispensaries and the New York Hospital Dispensary will be a great benefit. A well-established and reputable institution where medical advice may be obtained at a moderate fee, is certainly more acceptable to the patient than the quack medicines, the quack doctors, and the large fees of regular attendants, which during the month may amount to a great deal more than room rent.

REFORM.

ABUSE OF MEDICAL CHARITY.

MR. EDITOR:—Your editorial of last week on the "Abuse of Medical Charity" has the true ring, and it is devoutly to be hoped that you will continue to "preach" upon this subject until the minds of the profession are thoroughly aroused upon it, and a stop, or at least an abatement, is put upon this widespread and constantly increasing evil. It is a shame that so much medical advice and treatment is given gratuitously to people well able to pay for it, and a still greater shame that a considerable proportion of the profession itself fosters and encourages it. There is neither justice nor reason in it, and the half thousand physicians in this city, who are hardly able to earn a respectable living, despite their best efforts, will hail with delight the day when the medical profession ceases to cheapen and belittle itself by encouraging the multiplication of charitable institutions, and offering inducements for increasing the already too numerous army of medical paupers. The abuses of the organized charities of New York are too numerous and glaring to be denied, and the remedy is sufficiently obvious. The harvest is ripe for reform. Will you not, Mr. Editor, thrust in the sickle, and swing it with an unsparing hand, until some means are devised by which all except those who are absolutely unable to pay *anything* for the services of a physician, or for the medicine which is prescribed for them, shall be debarred from obtaining such services without remuneration?

PHYSICIAN.

NEW YORK, April 12, 1877.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Allow me to express my thanks for your outspoken opinion of the new departure of the New York Hospital. Indiscriminate charity is making fully one-third of the city's population beggars, and large numbers of persons, well able to pay reasonable fees for medical advice, are availing themselves of the dispensaries, because there they get good treatment for nothing. To my certain knowledge there are persons going there whose bank accounts show thousands of dollars to their credit. This statement I can substantiate by proof that cannot be controverted.

When will these abuses be abolished? When will the so-called philanthropists stop trying to degrade medicine to the level of the trades of bootblacks and tinkers, and ask medical men to live on the same pay? Let the profession stand against it. If *we* do not care for our interests, who under heaven will?

Very respectfully,

MEDIC.

MEDICAL DIARY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In the *London Lancet*, *Gazette*, and *British Medical Journal* there is published under the head of "Medical Diary for the Ensuing Week," the day and hour of the clinics to be held and operations performed at the several hospitals of London, together with a notice of meetings of societies, the subjects to be considered, etc. If the RECORD, which is now also a weekly, would publish a similar programme, I feel assured it would receive the hearty co-operation of the visiting physicians and surgeons of our hospitals in giving the necessary information. The invaluable experience afforded by our hospitals only exceptionally extends beyond the favored "visiting and interne," while the "outsider" remains ignorant of what goes on in his midst. Let our hospitals be "free and welcome" to every practitioner, and you will also receive the thanks of the profession at large for your trouble.

Yours truly,

HOSPITAL SURGEON.

[We should be very happy to follow out the suggestion of our correspondent, but the difficulties in the way are very numerous. We have already made an effort in that direction, but have found it impracticable, because of lack of promptness on the part of the proper authorities to furnish the desired information. We hope, however, to be able to perfect some plan which shall go into operation at no distant date, and which shall prove satisfactory to all. To be available, the information must be sent to this office on or before Tuesday of the week of publication.—ED.]

SULPHO-CARBOLATE OF SODA IN SCARLATINA.

TO THE EDITOR OF THE MEDICAL RECORD.

EVANSVILLE, April 10, 1877.

IN September the 2d, 1876, my article appeared on the above remedy in the *Philadelphia M. & S. Reporter*, vol. xxxv., No. 10. I have since treated six

cases, which confirm my former experience that it acts almost as a specific in this disease, as quinine does in intermittents. All my cases yielded promptly to the following prescription:

℞ Sulpho-carbolate of soda..... ʒ iss.
Aq. flores aurantii..... ʒ i.
Syr. pruni virgin..... ʒ iss.
" tolu..... ʒ ss.

M. et S. Teaspoonful every two hours for children two to twelve years old. I also used the same prescription, a teaspoonful four times a day, as a prophylactic with same good results. All the twelve children who took the medicine escaped the disease, although they lived in the same room with the sick ones.

Respectfully,
J. PIRNAT, M.D.

713 UPPER SIXTH STREET.

PUERPERAL FEVER AND POST-MORTEM EXAMINATIONS.

MR. EDITOR:—Under the above caption, in your March 31st number, it is stated that, at a recent meeting of the N. Y. Pathological Society, the question was asked, "whether it was safe to attend a parturient woman immediately after performing an autopsy?" As the question is a very important one, it may be well to state that, in 1860, I had a case very similar to that related by Dr. Janeway in answering Dr. White's question. I had just finished making an autopsy of a case of peritonitis, in which my hands, and those of my then assistant, Dr. Richardson, of Virginia, had been bathed in the abundant serum for an hour or more, when I was summoned to go four or five miles to attend a case of confinement, where instruments would probably be necessary. There was no physician available but ourselves. Assistance had already been delayed too long, and after several ineffectual attempts to perform version (it was a transverse presentation), I was compelled to resort to evisceration and the use of the crotchet. The operation was a protracted one; but the mother had not an untoward symptom. I I thought, at the time, that she had a providential escape; but I am since inclined to Dr. Janeway's opinion, both as regards the *innocuousness* of the post-mortem contamination, and the *danger of the erysipelatous.*

F. D. LENTE, M.D.

PALATKA, FLORIDA, April 3, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 15 to 21, 1877.

MAGRUDER, D. L., Surgeon. Assigned to duty as Attending Surgeon and Examiner of recruits at St. Louis, Mo. S. O. 82, A. G. O., April 18, 1877.

ALEXANDER, C. T., Surgeon. When relieved by Surgeon Magruder to report to the Com'd'g General, Dept. of the Columbia, for assignment to duty. S. O. 82, c. s., A. G. O.

WOODHULL, A. A., Surgeon. To report to the Com'd'g General, Mil. Div. of the Pacific and Dept. of California, for duty in Dept. of California. S. O. 83, A. G. O., April 19, 1877.

DE GRAW, C. S., Asst. Surgeon. Assigned to duty at Oglethorpe Barracks, Savannah, Ga. S. O. 76, Dept. of the South, April 19, 1877.

JESSOP, S. S., Asst. Surgeon. Assigned to duty at Charleston, S. C. S. O. 75, Dept. of the South, April 18, 1877.

DE HANNE, J. V., Asst. Surgeon. To report to the Com'd'g General, Dept. of Texas, for assignment to duty. S. O. 83, c. s., A. G. O.

GIRARD, A. C., Asst. Surgeon. To report to the Com'd'g General, Dept. of Dakota, for assignment to duty. S. O. 83, c. s., A. G. O.

WOODRUFF, E., Asst. Surgeon. To report to the Com'd'g General, Dept. of Texas, for assignment to duty. S. O. 83, c. s., A. G. O.

KING, WM. H., Asst. Surgeon. To report to the Com'd'g General, Dept. of Dakota, for assignment to duty. S. O. 83, c. s., A. G. O.

GARDNER, E. F., Asst. Surgeon. To proceed to Ft. A. Lincoln, D. T., for duty with the column under orders for field service. S. O. 45, Dept. of Dakota, April 10, 1877.

CORBUSIER, W. H., Asst. Surgeon. Assigned to duty at Charleston, S. C. S. O. 76, c. s., Dept. of the South.

TESSON, L. S., Asst. Surgeon. Assigned to duty at the post to be established at the mouth of the Little Big Horn River, Mont. S. O. 47, Dept. of Dakota, April 14, 1877.

Medical Items and News.

THE COLLEGE OF PHYSICIANS AND SURGEONS AND GRADUATION QUALIFICATIONS.—In a recent number of the MEDICAL RECORD we referred to certain charges made against the College of Physicians and Surgeons by the *University Herald*, Syracuse, N. Y., regarding the improper graduation of a student at the last commencement. These charges were, that the said student was not twenty-one years of age, had studied medicine but two years, had affixed A.B. to his name without receiving a diploma therefor, and had not attended two full courses of lectures. Immediately after this item was published the college commenced an investigation of the case, sifting the evidence on both sides. The results of this investigation are given in detail in an elaborate document by Prof. John G. Curtis, M.D., Dean of the Faculty. We very much regret that the extreme length of Prof. Curtis's letter forbids its publication entire. A summary of its contents is, however, the best we can do for it under the circumstances of a promise to publish all the facts in the case at the earliest possible moment. Prof. Curtis denies in toto the charges, and proves quite satisfactorily by certificates, affidavits, lecture tickets, etc., that the gentleman in question took two full courses of lectures, studied medicine for the full term of three years, and was past twenty-one years of age at the time he graduated from the College of Physicians and Surgeons. In regard to the title of A.B., its use by the graduate in question (on any occasion while connected with the college) is flatly denied by the Professor. It would appear, then, that the charges of the *University Herald* are without any foundation in fact.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending April 21, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
April 14.....	0	2	101	5	38	40	1
" 21	1	4	102	1	14	56	1

Dr. Gurdon Buck.—At the recent meeting of the Medical Board of the Presbyterian Hospital, the following were presented by Dr. A. C. Post and unanimously adopted:

Whereas, It has pleased Almighty God to remove from earth the soul of our late associate, Gurdon Buck, M.D.:

Resolved, That we highly appreciate the untiring industry, the unflagging zeal, the patient study, the careful observation and accurate record of cases. the sound judgment, the fertility of resources, and the skillful application of the means of relief which raised him to a very distinguished position as a surgeon, and gave him a world-wide reputation in the profession.

Resolved, That we entertain a high sense of his executive ability displayed in the organization of the Surgical Department of this Hospital, and of other institutions with which he has been connected.

Resolved, That we cherish his memory as that of an upright and honorable man, a good citizen, a faithful friend, and a consistent Christian.

Resolved, That we sympathize with the members of his family in the bereavement which they have sustained.

Resolved, That copies of these resolutions be sent to the family of the deceased, and to the medical journals of the city.

The Progress of Hippophagy.—Since the siege of Paris the quantity of horse meat consumed in that city has increased yearly. In 1875, 6,865 horses, asses, and mules were slaughtered for public consumption at the horse-shambles, while in 1876 the number had increased to 9,271, weighing 1,685,470 kilogrammes of meat, net. On the 1st of last January there were 58 special slaughter-houses in Paris; of these nine belong to M. Têtard, who has received a gold medal as a recompense for his zeal. The population of Lyons is not as much given to hippophagy. In 1872, 1,262 horses, asses, and mules were slaughtered in the seven special slaughter-houses, but in 1876 the number had fallen to 1,088. In Paris, there are more unfortunate people who are unable to pay the enormous prices demanded for butcher's meat, and are forced to content themselves with horse meat. From a hygienic point of view, it is a great advantage that they are able to obtain this meat; for healthy meat taken from animals that are slaughtered on account of lameness is much more nutritious than a diet composed solely of vegetables, with the addition perhaps of inferior or bad meat.

Treatment of Hemorrhagic Fever.—Dr. W. H. Johnston, of Selma, Ala., writes as follows:

"I have found nothing comparable to diaphoresis in the treatment of this disease, and I carry it out in the following manner, viz.: If my patient is not too weak, I have him placed in a large tub of hot water, and throw a blanket around him, and let him remain for fifteen minutes. Then remove him and wrap him in a blanket, and cover him with blankets, and let him perspire for nearly or quite an hour, giving him bits of ice during the time. The nausea and vomiting will be greatly, if not entirely relieved by this bath, and the yellowness of the skin will also disappear. In the course of two or three hours the urine will begin to grow lighter in color and have a urinous odor, and in ten or twelve hours will be normal. The pulse falls steadily after the bath. A few hours after the bath, I give fifteen or twenty grains of quinine by the mouth, or thirty grains by enema.

"If the nausea returns I repeat the bath. If my patient is too weak to be removed from the bed, I have a blanket wrung out after having been soaked in hot water, and wrap him in it after removing his clothes.

"I generally give teaspoonful doses of Squibb's fluid extract of ergot every two hours till the blood disappears from the urine.

"Though I believe the diaphoresis is sufficient without this to relieve the whole trouble, my subsequent treatment is quinine daily for a week or more.

Electrolysis in Ovarian Tumors.—Dr. Paul F. Mundé, 20 West Forty-fifth St., New York, requests any gentleman, who has either met with a case of this treatment himself or knows of one in the practice of a friend, to send him *at once* by mail a short history embracing such points as: age, general health of patient, duration of disease, dimensions of abdomen; number and length of sittings, strength of current used, name or character of battery; needles, where inserted; how many, negative or positive; results, good, bad, and negative; length of time patient remained under observation. Dr. Mundé is preparing a paper on this subject, and is anxious to collect the material "*as soon as possible*" prior to the 10th of May.

Medical Woman.—*Nature* announces that the Royal Free Hospital, London, has at length granted woman the privilege of entering the hospital for clinical instruction. It is said that the trustees of the London School of Medicine for Women had resolved to close it, and to recommend their pupils to seek instruction elsewhere than in England, but that this concession of the Free Hospital will prevent the breaking up of the school.

Dr. George H. Lamson, son of a distinguished clergyman of that name, and who was the only American surgeon in the Servian army, in which he held a responsible position during the late war against Turkey, has had the Gold Cross of the Order of the Tahoo conferred on him by Prince Milan. Dr. Lamson gained valuable experience during the siege of Paris in the American ambulance, under Dr. John Swinburne, late health officer of this city, and where he was also decorated with the Bronze Cross of Geneva.

Large Heart.—Dr. W. L. Kelsey, of Willington, Ct., states that the heart of Tully Harbison, æt. twenty-one years, who died suddenly, weighed two pounds and twelve ounces. This is certainly a large heart, but cases are on record in which this organ had reached a much larger size. For instance, Prof. A. Clark, of the College of Physicians and Surgeons, has presented one which weighs fifty-seven ounces. This, we believe, is the largest on record.

American Gynecological Society.—The second annual meeting of this Society will be held in Boston, on May 30, 31, and June 1, 1877. Papers are expected from the following gentlemen: Dr. Fordyce Barker, President; Drs. Robert Battey, Van de Warker, W. T. Lusk, G. H. Lyman, J. C. Dalton, W. L. Richardson, W. Goodell, R. A. F. Penrose, J. R. Chadwick, and many others.

Dispensary and Infirmary of the Church of the Holy Trinity.—We learn from the Annual Report of the Trustees of the Dispensary and Infirmary, for 1876, that there were treated at the dispensary, 1,285; at their homes, 291; number of visits made to patients at their homes, 838; number of prescriptions given, 6,349; the cost, $1,146.28. The medical staff consists of the following gentlemen: Howard Pinkney, Physician in Charge, assisted by Drs. W. W. Strew, Mercy Baker, Howard Pinkney, Charles Milne, S. Hutchings Hurd, I. V. Mott, Robt. Campbell.

Original Lectures.

ON CONSTIPATION.

CLINICAL LECTURE DELIVERED IN BELLEVUE HOSPITAL,

By WM. H. THOMSON, M.D.,

PROFESSOR OF THERAPEUTICS IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

(Phonographically reported for THE MEDICAL RECORD.

GENTLEMEN:—I will direct your attention to-day to the treatment of constipation as found among males as commonly, perhaps, as among females. The constipation generally complained of in the male sex I divide into that due to deficient action of the small intestine, and into that due to deficient action on the part of some portion of the large intestine.

Deficient action on the part of the small intestine is due to two causes:

1. Deficient secretion;

2. Want of innervation, or want of muscular action.

Constipation dependent upon deficient secretion is quite distinct from that caused by want of muscular action, and yet you will have many cases in which both causes are operating.

Deficient secretion in the small intestine may be caused by some disturbance of the liver. Constipation, therefore, may date from the time when the patient suffered from some severe form of fever in which the liver was prominently involved, such as the bilious remittent; or, it may follow an attack of tropical diarrhœa, which is almost invariably accompanied by marked hepatic disturbance.

In such cases the patient does not have an extraordinary fecal accumulation and impaction, but there is, instead, a sluggish action of the bowels, and they are usually obliged to take medicine to bring about a movement once in four or five days; and when it does occur, the evacuation is moderate in amount, and quite dry.

This kind of constipation is quite common in the Southern States, as a sequence of the diarrhœa which prevails in that latitude; and it is also frequently seen in the Northern States as the result of malarial poisoning.

The symptoms are extremely negative, except the constipation. The one which, perhaps, gives the patient most discomfort, is a tendency to a dull, indefinite headache. In a majority of cases this is located in the posterior part of the head, is rather an uncomfortable sensation than a real pain, and is best relieved by something which promotes a free discharge of bile. The tongue usually is small, not large and flabby, generally a little reddened along the edges and tip, and the secretions of the mouth are commonly viscid. The condition of the mouth is an indication of the condition present along the entire alimentary canal. We have, therefore, evidence of the presence of only a moderate amount of secretion in the intestinal tube, and our treatment should be regulated accordingly.

If, for the relief of this condition, you administer mild cathartics, the condition of the case will be aggravated, because the temporary stimulus afforded by them, however mild, is immediately overcome by the tendency to deficient secretion. Active purgation produces a much more injurious effect than mild laxatives. If you resort to the use of medicines which have been recommended to stimulate nerve action, you will not obtain much benefit. What you wish to have present in the intestine, is a small increase of lubricating substance, as it were, and, to that end, I have found altogether the best results have been obtained by causing the patient to take a great deal more water than is his usual custom. Let him take, on rising in the morning, two tumblerfuls of Croton or other drinking-water. As a rule, those who drink considerable water are not troubled with constipation. You can insure the laxative action of the water by the addition of some mild saline, like the carbonate of soda, or even common salt, and the reason why such an effect is produced is this: the mixture formed by the union of some saline with water, does not readily pass through the mucous membrane, and so into the general system. The theory now generally accepted with regard to the action of salines, is that they are not absorbed, and that they prevent the water with which they are combined from being absorbed; hence the water, by exciting the peristaltic action of the bowel, brings about a movement to discharge it, and with that the other contents of the intestinal tube. There is considerable to lend support to this view. You need not, therefore, give large doses of saline cathartics, as a half-drachm of the sulphate of magnesia, dissolved in a pint of water, commonly operates very nicely.

There is another curious fact which may here be mentioned, namely—the addition of small doses of quinine to salines increases their power of acting upon the intestine. For example:

℞. Magnesia sulphas..... ʒ i.
Quin. sulph..... gr. i.

mixed and taken in a tumbler of water every morning rarely fails to produce all the laxative effect required, in every form of deficient secretion from the bowels; for instance, in the constipation following fever, when you desire to obtain a free alvine evacuation.

It is well for you to tell the patients that they will not, perhaps, see much effect for one or two weeks, but if they can be induced to persist in the daily use of large quantities of water, a great deal of benefit will almost certainly follow. There is a supposition on the part of the laity that certain fruits are laxative, and that is probably true to a limited extent. *Oranges* may be eaten with benefit, but it usually requires ten or twelve to overcome an obstinate constipation, a fact which renders the remedy quite impracticable in this climate. In the warmer climates, however, the worst forms of constipation which appear can be overcome by oranges alone, and the more juicy they are the better, from the fact that the citric acid which they contain has a tendency to produce a catarrh of the intestine if taken in excess. *Figs* are a rather dangerous laxative, for they may obstruct the intestines: there is not much danger, however, in this direction, if taken with a large quantity of water. It will be found necessary to use about double the amount of water with figs that will be required with any other laxative fruit. The fruits of this climate are very uncertain in their action; the action of apples is very good, but very many persons are unable to take them in sufficient quantity to produce any effect upon the bowels, although they may at the same time take a large quantity of water. All along you will find that water is one of the most important agents to be employed for overcoming deficient secretion in the intestine, attending constipation. If *flatulence*, resulting from decomposition of the intestinal secretion, accompanies the constipation, you may have recourse to the following pill:

℞. Assafœtidæ.....gr. iv.
Saponis.....gr. ix.
M.

To this may be added nux vomica if there is evidence of *deficient innervation* in the intestine.

How are you to judge that the leading element in the case is deficient innervation? I am now speaking with more special reference to the small intestine. As a rule, you may say with safety that deficient innervation is an accompaniment of the constipation that troubles persons with sedentary habits of life.

As a rule, it attends the constipation present in elderly persons; and such constipation also occurs among those whose occupation causes them to maintain positions in which the abdominal muscles are to a very great extent motionless, such as shoemakers, tailors, etc., etc. There is also a tendency to headache, and there is a great deficiency in the excretion of the coloring matters of the bile, as might be expected; for the secretory action of the intestines is as much interfered with as is the muscular action. Hence this class of patients are usually of dull sallow color; there is a tendency to greasy accumulations upon the surface; the entire movements are sluggish; and there is usually a lack of frequency in the pulse.

Now, with regard to the treatment for this class of cases.

In the first place, the habits of the patient have a tendency to keep up the constipation, but the means to be employed for overcoming it are quite different from those resorted to in the other class. As a rule, these patients do not bear much water, and why not? Because it weakens their digestive powers, and they will very soon complain of loss of appetite, heaviness in the head, etc.; and it does not excite much peristaltic action in the bowels. At all events it is not nearly so apt to increase the peristaltic action as in the class of cases in which deficiency of secretion in the intestinal canal is the leading element.

What you wish to do here is to arouse the peristaltic action of the bowels, and at the same time increase the general innervation of the secretory apparatus. To do this, the best means that can be employed, if the patient is permitted to remain at his occupation, is water applied externally. The only way in which they can derive benefit from the internal use of water is to send them away from their business to a mineral spring. Then, having a change of occupation, the water taken internally will give them much benefit. But most of your patients will be unable to make this change, and for those water may be used externally with great advantage. Direct that a sitz bath be taken every night, in water as cold as the patient can bear, and have a good reaction afterwards. In a great many cases this simple measure will work wonders, just as it will do in certain cases of deficient innervation of the large intestine.

Another method of using water externally is, on rising in the morning to sponge the spine and bowels with cold salt water, made about as irritant as possible.

In other cases great benefit will be derived by giving the bowels a local shower-bath; and that can be done by dashing the water against the abdomen while the patient is in the standing position. This brings about an action in the bowels the same as a cold hand upon the abdomen causes contraction of the uterus; that is, it is through the sympathy of the nerves of the surface with the viscera underlying them.

In this class of cases nux vomica has proven itself a very efficient remedy, and it may be administered in combination with any drug you may wish to use. It will increase the efficacy of small doses of the resinous cathartics, which are irritant and stimulant; hence small doses of rhubarb with nux vomica and soap, may be given in the form of a pill with much more benefit than when administered separately.

The application of the faradic current, one pole of the battery placed over the spine, and the other passed up and down over the abdominal walls, will, in many cases, be found beneficial.

What is known as the health-lift will prove advantageous in certain cases, and the reason is that it brings into action all the abdominal muscles, especially the recti, and that action is brought to bear directly upon the sluggish intestines. When any lesion of the bowels is present, the health-lift cannot be employed.

There is another form of constipation that may be mentioned in this connection, and that is the

CONSTIPATION DEPENDENT UPOND IABETES.

In that instance, it is due to total deficiency of secretion into the intestinal tube, and death may result in consequence of the constipation which occurs in connection with that disease.

CONSTIPATION DEPENDENT UPON CERTAIN CONDITIONS PRESENT IN THE LARGE INTESTINE.

We come now to the large intestine, and here we find that constipation depends upon nearly the same conditions as were found present in the small intestines. That is, we have constipation dependent upon deficiency of action, and that it in turn may depend upon deficient secretion or deficient innervation, but it is far more commonly dependent upon the latter. Here the patient may be troubled with large fecal accumulations, and that condition may depend upon deficient nerve power on the part of the colon, or the deficient innervation may be confined to the rectum.

One of the worst forms of constipation may occur, dependent upon no other condition than that which is present in the rectum alone, and unless the physician is upon the alert the result may be the development of a rectal abscess.

When this condition is present, the patients have but little knowledge that they should have a movement from the bowels, and whenever the sensation is developed they have little or no power to expel the fecal accumulation. When such symptoms are present it is a pretty certain indication that they depend upon deficient innervation of the rectum, and, unless that condition is overcome, serious consequences may follow. One of the most common causes of this condition is a chronic inflammation set up about hemorrhoids. Prolonged inflammation of any part, especially, however, about the mucous membrane, produces deficient innervation, and then follows a relaxed condition, and with this deficient innervation we are, therefore, very liable to have prolapsus of the rectum.

These patients are peculiar in one respect, namely: they are very generally low-spirited. It sometimes happens that insanity is developed by such a diseased condition of the rectum, and is relieved when the rectal trouble is removed.

With regard to treatment, the first indication is to keep the rectum empty. When fecal accumulations are present, the most efficient and convenient method of removing them is by means of enemata; but just here I wish to say a few words of caution with reference to resorting to that measure. You should never prescribe enemata as a regular treatment, for if the patient gets into the way of emptying the bowels daily in health by enemata, they can never dispense with their use. If you recommend that the patient should use the syringe every morning for the purpose of evacuating the bowels, and it is continued regularly for six weeks, he has gone considerably far toward

making it a necessity during the remainder of his life. Do not abuse the measure if you can possibly avoid doing so. It will probably be necessary to use this means for removing accumulations which happen to be present, but when they are thoroughly cleared out you should at once resort to other measures for restoring lost innervation to the bowel, and one of the very best of these is the local use of strychnia. It is an exceedingly valuable specific in these cases.

It will frequently succeed in curing the worst forms of prolapsus of the rectum, as well as that condition in which there is simple debility with hypertrophy of the mucous membrane. The manner in which you can carry long-standing cases of prolapsus of the rectum by means of injections of strychnia into the submucous tissue itself is sometimes wonderful. If necessary, you can draw a fold of the mucous membrane down and then insert the injection.

I have relied upon this agent almost exclusively in the treatment of this class of cases, whether the real cause was hypertrophy of the mucous membrane from long-standing hemorrhoids, or there was a simple deficiency of power in the rectum to expel its contents. There is another class of cases in which this agent will prove beneficial, and that is cases of prolonged cystitis from any cause. As is well known, elderly men who suffer from enlarged prostate, suffer more or less from cystitis, and they are always apt to have accumulation of fecal matter in the lower part of the bowel, and it is for the reason to which reference has just been made, namely, deficient innervation. Hence in the treatment of any form of cystitis, especially that accompanying enlarged prostate, if the patient complains that the evacuation from the bowels is small and that the movement does not seem to completely empty them, clear them out effectually by means of enemata, and then use injections of strychnia, and you will find that in very many cases both conditions will be materially relieved. With the other form of constipation there is a tendency to the formation of scybalous masses. The most common situation of such accumulations is at the upper part of the rectum, and next in the transverse colon. It is only when they are dislodged that they come down into the sigmoid flexure. It is in these cases that you will find the mineral waters most beneficial of anything that can be employed. In the first place, the mineral water will loosen the scybalous masses without depressing the patient in the least, and it will also prevent new accumulations. Of these the Congress or Kissingen may be used, or both may be used at the same time. In this class of cases you will derive considerable benefit from the use of belladonna or stramonium in the form of a suppository. The patient may take his Kissingen water in the morning, and use a suppository of belladonna or stramonium at night. If the belladonna is employed, it should be given in such quantity as will produce a little dryness of the throat and slight dilatation of the pupil the following morning.

Faradization along the track of the colon is equally beneficial as in the treatment of constipation of the small intestine, and the hip-bath may also be of service, but it does not answer so good a purpose as when the small intestine is chiefly involved. If you can avoid the use of enemata except for the purpose of removing fecal accumulation near the anus, do so, for the effect produced by much over-distention of the intestine is bad.

A single over-distention of the bladder may be followed by a permanent weakness for the remainder of the patient's life, and that distention may not last more that eighteen hours. So a single over-distention of the intestine may greatly weaken the normal rhythm of that tube.

CONSTIPATION AND FECAL ACCUMULATIONS FOLLOWING FEBRILE DISEASES.

The effect of fever is to dry up all the secretions present in the intestine; consequently a very common complication, when a patient is making a recovery from pneumonia or any other disease in which fever has been a leading element, is an accumulation of fæces at different parts of the intestinal tube.

In former days, when fevers were treated upon the plan of administering medicines which were to eliminate the poison from the system by way of the bowels, scybalous accumulation did not occur very frequently; but nowadays, when the treatment is conducted upon an entirely different plan, the fever may be continued and retained as the direct result of fecal accumulation. This is especially true of the latter stages of a fever; but such accumulation can be prevented from forming, and be removed by the use of a proper kind of cathartic.

For this purpose there is no combination more serviceable than the compound jalap powder, and it is the one which by all means should be employed. It promotes the discharge of the serous elements into the intestine, assists in the absorption of the deposits which have taken place in the lung, if the case be one of pneumonia; also acts upon the kidneys as well as the bowels, and is one of the mildest that can be employed which so fully meets the indications in this class of cases.

Original Communications.

SOME POINTS RESPECTING DIPHTHERIA.

By BENJAMIN EDSON, M.D.,

BROOKLYN, N. Y.

The idea is fast gaining ground that diphtheria, when not communicated from person to person, is generally, if not always, due to unsanitary local conditions. It may be developed from foul, stagnant water, from defective drainage-pipes, permitting soil-saturation with the unwholesome fluids that should be conducted safely away, or, as is too frequently the case, from cheap and defective plumbing, without proper traps and devices for preventing the intrusion of noxious sewer-gas into the sleeping apartments and living-rooms of dwellings.

So long as there continues to be danger from these causes, so long there rests upon every one the duty of contributing, so far as he may, any facts and observations bearing upon this subject, which may aid in bringing home to all a conviction of the danger which threatens so many households.

This is my apology, if any be needed, for detailing the particulars of twelve cases of this disease occurring in the Home for Destitute Children in this city, in the latter part of December, 1876, and the early days of January, 1877. Part of them I observed in the service of Dr. Wm. H. B. Pratt, and part of them were under my own immediate care.

In the "Home" are over one hundred children from two to twelve years of age, and of about the average class found in such public institutions.

Many of them inherit feeble and tainted constitu-

tions—some are the offspring of dissolute parents—others are orphans with more or less tendency to diseases from which their parents have died.

The "Home" is a model of cleanliness, and is in all respects admirably kept, no pains being spared to in every way conduce to the comfort of those entrusted to its care.

It was then a matter of no little surprise, when, in December last, a case of diphtheria was brought to the notice of the attending physician. The building was at once carefully inspected—as it was then thought—but no unsanitary condition could be discovered. Other cases followed in quick succession, and as new cases were developed, the plumbers again and again examined the building, and declare that there was nothing wrong about it—that everything was in perfect order. Every child affected was promptly removed to the hospital of the institution.

The greater part of the children affected by the disease were from two to five years of age—inmates of the nursery on the first floor. This nursery consisted of three adjoining rooms, separated by wide folding doors, which were usually kept open. The three rooms were occupied in common as living and play rooms during the day, and the two extreme ones, the doors still open, were used as sleeping-rooms at night. In this nursery there were twenty-seven children.

In course of the repeated searches for the hidden cause of the epidemic, it was eventually noticed that all the cases from the nursery were of children that slept in one room, and that the room apparently least exposed to unsanitary influences. This discovery was followed by still more searching examination, which revealed what had been hitherto unsuspected, that the soil-pipe from the water-closet on the third floor crossed the building on a line adjacent to some of the dormitories, then turning at an angle downward passed to the sewer, and in its course was encased in the wall of this affected room. It was then further ascertained that a room directly over the nursery formerly had a wash-basin communicating with this main pipe, and there was a tradition that at times the room was so filled with sewer-gas that the occupants were forced to leave it.

Still further, a small part of this same affected room was found to have been formerly a water-closet. The partitions and appurtenances having been removed, and the space included in the nursery, the soil-pipe was merely levelled below the floor, and more or less effectually plastered up.

From these pipes the sewer-gas had no means of escape, except through defects in the plumbing into the occupied rooms. So insidious had this been that it had escaped particular notice.

To relieve this condition of things, a shaft was extended from the vertical portion of the pipe directly upward through the roof, thus affording a free escape for the ascending sewer-gas into the open air.

This was done on the 6th of January. On the 7th the last case of diphtheria was sent to the hospital, the child presumably having received the poison into his system before the alteration was made.

Up to this time there were three or four new cases each week; since that time not a single case has occurred in the institution. A brief summary of the points thus far embraces: The development of diphtheria; its continuance; the suspected cause; finally, its removal, followed by the immediate and absolute subsidence of the disease.

The special point of this history is its *completeness*, coming so near to positive proof that there is little left to be supplemented by inference.

In view of recent discussions respecting the diagnosis of croup and diphtheria, it may not be out of place to refer to these cases somewhat in detail. I do not think that this part of their history is calculated to shed much light upon disputed points; indeed, they have rather served to unsettle some very fixed opinions that I previously held.

Of the twelve children attacked three died. Of these three, two were clearly diphtheritic from the first, the disease subsequently extending to or developing itself in the larynx. The third case was one of pseudo-membranous laryngitis from the first, the pharynx at no time being affected.

One child that died had twice had pneumonia; his mother died from phthisis, and he had lost an eye from a previous attack of measles.

Eight of the cases were beyond question cases of diphtheria. The remaining four, had they occurred sporadically, would unquestionably have been considered typical cases of true croup, being clearly laryngeal throughout their entire history. Occurring, however, as they did in close succession—due, beyond question, to the same local cause—it was deemed warrantable, if not absolutely correct, to consider them all cases of diphtheria. It has been said by those considered to be good authority that we cannot be sure in our diagnosis of diphtheria until the membrane is visible in the fauces. I am not prepared to take issue upon this point; but in these four particular cases I find it easier to believe that they were diphtheritic, due to the poison of the sewer-gas, than that they were only cases of croup, "sporadic," or merely the result of "a cold," or that we had in this instance an epidemic of croup.

In conclusion, it is but justice to myself to say that, while from the carefully chosen language of theorists and writers it seems very easy to reach the conclusion that croup and diphtheria are two distinct diseases, due to very different causes, and readily distinguishable—an opinion that I have tried hard to maintain, and am still very unwilling to abandon—a careful study of a group of cases such as I have briefly referred to leaves me with convictions somewhat unsettled upon several of the disputed points.

In my present condition I deem it prudent to wait for further light on this subject.

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CRESOTINIC ACID IN ACUTE ARTICULAR RHEUMATISM.

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The *Berliner klinische Wochenschrift* of July 31, 1876, contains an article on the antipyretic effects of cresotinic acid, by Dr. C. E. Buss, of Basel. Amongst others, a brief allusion is made to two cases of acute articular rheumatism, in which sodium cresotinate was administered with the most happy results. The perusal of this article prompted Dr. Carl H. Lellmann to a trial of the remedy, and the results, so far as obtained, are herewith presented to the profession. Only two ounces of cresotinic acid could be procured in this city. This was exhausted in the treatment of the two cases narrated below, and a stop thereby put to further experimentation at present. The drug has, however, been ordered in larger quantities, and on its arrival it is proposed to continue the investigation of its therapeutic effects.

Cresotinic acid, $C_8H_8O_3$, is derived from cresol, and is obtained by introducing carbon dioxide to sodium

cresylate. It occurs in fine, white, prismatic crystals, soluble with difficulty in cold water, but readily soluble in hot water, alcohol, and ether. Its taste and action on mucous membranes are almost identical with those of salicylic acid. Sodium cresotinate is very soluble in both hot and cold water, entirely unirritating, and neither in substance nor in concentrated solution productive of any perceptible changes on the mucous membrane. For these reasons it was decided to employ the salt in preference to the acid.

CASE I.—Wm. Weber, æt. twenty-four; cabinet-maker. Admitted to St. Francis Hospital, service of Dr. Lellmann, March 11, 1877. One year ago had an attack of acute articular rheumatism which lasted four weeks. The present attack began on March 4th, six days before admission. The ankles were first affected; subsequently the right knee, right elbow, and both wrists. On examination at eight P.M. of day of admission both wrists and the right knee were found hot, swollen, red, and tender; the right knee was moderately distended by an accumulation of fluid in the synovial cavity. The patient was suffering intensely, tongue thickly coated, pulse 116, temperature 102½° F. Ordered: R. Acidi cresotinici, sodii bicarbonat., āā gm. 8.0; syrup aurantii cortic., gm. 15.0; aquæ gm. 165.0. M. Tablespoonful every two hours.

March 12, 11 A.M.—Patient had taken one tablespoonful of the medicine last night, and two this morning, altogether gm. 2.0 of cresotinic acid. Wrists and right knee present the same objective symptoms as yesterday; pain, however, is very slight, and distention of knee-joint less. I administered gm. 2.66 of cresotinic acid at one dose. At two P.M. the patient is entirely free from suffering; the knee scarcely shows a trace of inflammation, and is absolutely painless; the wrists, though still hot, red, and swollen, can be freely moved without causing the slightest pain; pulse 92, temperature 101½° F.

March 13, 11 A.M.—Has taken gm. 8.0 cresotinic acid since yesterday—gm. 12.66 in all since treatment was begun. All signs of local inflammation have disappeared; there is no pain anywhere. Pulse 78; temperature in rectum 99½° F.; skin moist; tongue still slightly furred.

March 14, 11 A.M.—Taken gm. 3.33 acid cresotinic since yesterday morning—gm. 16.0 in all since beginning of treatment. No local or general symptoms of the disease present; pulse 66; temperature 98¾° F. All treatment discontinued.

March 15, 11 A.M.—Pulse 54; temperature 98¾° F.

March 16, 11 A.M.—Pulse 50; temperature, 98½° F.

The temperature remained normal during the remainder of the patient's stay in hospital. The pulse on the 17th was still only 50; from that time it gradually rose, and on the 19th reached 66, the patient's normal pulse. Discharged March 31st, having had no disagreeable symptom, and no treatment since the 14th.

CASE II.—Occurred in the private practice of Dr. Lellmann, to whose kindness I am indebted for the details. A. H., male, æt. forty-eight, was taken with acute articular rheumatism, March 15, 1877. It was his second attack, the first having occurred fifteen months previously, and lasted two weeks. The knees were principally affected, and an unusually large amount of effusion had taken place into both joints, causing the most intense suffering. After taking gm. 8.0 cresotinic acid, in combination with sodium carbonate, per diem, for two days, the joints were perfectly painless on either pressure or motion, although the heat and swelling still remained. Gm. 8.0 more were taken during the third day, when symptoms similar to those of salicylicism supervened—dull headache, tinnitus aurium, and free perspiration, with a general feeling of malaise. At the same time all symptoms due to the rheumatic affection had entirely disappeared, and the medicine was at once discontinued. During the first day of its administration the patient noticed a marked increase in the quantity of the urinary secretion, which was clear and of a bright yellow color. By subsequent measurement it was ascertained that from two hundred and twenty to two hundred and forty fluid ounces per diem were passed during the following three days.

The influence of cresotinic acid on the temperature in Case I. was quite marked, and harmonizes with the results obtained by Buss, who considers it fully equal in antipyretic powers to salicylic acid and quinine. In Case II. no temperature record available for satisfactory deductions could be obtained.

The reduction of the pulse rate was still more noteworthy, and corresponds very closely to the same effect habitually observed during the administration of salicylic acid. In Case I. the pulse rapidly fell to below the normal, and remained thus for three days after the acid was entirely discontinued. In Case II. there was a fall from 90 to 70 per minute during the first twenty-four hours; during the remainder of the time the patient was under observation the pulse varied between 60 and 70.

But the most striking feature of the progress of both cases was the complete cessation of pain in the affected joints, while they still presented all the objective signs of acute inflammation. In this condition all the different movements of which the respective joints were normally capable could be undertaken without the slightest inconvenience.

A very marked diuretic effect was observed in Case II., and the disagreeable symptoms which arose on the third day point to the propriety of carefully watching the effects of the remedy.

Reports of Hospitals.

PRESBYTERIAN HOSPITAL, N. Y.

FRAGMENT OF RIB IN THE PERINEUM.

(Reported by W. F. FOREST, M.D.)

OWEN MCCABE, aged 64, out-patient. While the patient was straining at stool, he felt something come down which he supposed to be a hæmorrhoid. A sharp pain succeeded, and continued day and night. Three days later, a large abscess appeared between the coccyx and anus, a little to the left side, and opened spontaneously. On the tenth day from the time of the attack he was first visited, and was then too sick to be moved to the hospital. He was suffering from septicæmia; had had three chills during the day, followed by profuse sweating, and was in an alarming condition.

Two large abscesses in the perineum were found and opened, and the patient was put upon a treatment of quinia sulph. grs. v., and ferri mur. tr. gtt. xx., every two hours, with milk, eggs, and brandy *ad libitum*.

Bare bone was detected in the vicinity of the coccyx, which was thought to be the coccyx dissected out by the abscess. When the patient had rallied from his hectic, this dead bone was removed and found to be a piece of a rib. This fragment was 1⅝ inches in length, ⅝ inches in breadth, very sharp at one end, rounded

at the other, and evidently broken out from the body of a rib. It resembled a portion of one of the lower ribs *of the human skeleton*. In trying to account for the presence of this piece of rib in the perineum, it was thought at first that the patient must have swallowed it. But this the patient indignantly denied, and, indeed, it would seem impossible that such a sharp piece of bone could pass through the more than 25 feet of the alimentary canal without causing serious trouble. No evidence of a fistula leading into the intestine could be discovered.

On questioning the patient very closely as to an injury, it was found that three years previously, he had been injured about the head and shoulders by a floor falling upon him, but he had no suspicion that a rib had been broken at that time; has had no injury, and has been a perfectly well man ever since. He was examined, and along the body of the tenth rib of the right side an irregularity was detected, as if a fragment might have been broken out of its body.

From these considerations it was thought that this piece of rib, 1⅝ inches in length, had been broken out from the tenth rib of the right side, remained in the body three years, travelled across the body from the right to the left side, and down into the perineum, and during this time had not caused a single symptom, or produced any trouble until it reached the perineum.

DIABETES INSIPIDUS.

This was the case of a boy 8 years of age. He has had the disease for the last two years. No history of an injury to the head, or any known cause for the disease. His father was said to have had the disease when he was two years of age, but recovered fully.

The patient is a bright, intelligent, active boy, and does not differ in appearance from other boys of his age, except that he is small for his age and has an unusually large head. He has lost but little flesh during the last two years, but has not grown any in size during the time.

His urine was examined and found to be of a sp. gr. of 1000.1, nothing abnormal in it, and in appearance resembled Croton water. The amount passed in 24 hours varied from 180 to 218 ounces, nearly ⅛ of the boy's weight.

The patient was permitted to drink all he wished, and the amount was carefully observed. It was found that during 24 hours he drank 80 ounces of fluid, including in this water, milk, and coffee, and during the same period he passed 218 ounces by the kidneys, nearly three times as much fluid as he drank.

These observations differ from those of Niemeyer, who claims that the amount of urine excreted in these cases can never exceed the quantity of fluid imbibed, without the occurrence of a corresponding decrease in the weight of the body.

The boy was taken from the hospital before many observations could be made, and before a plan of treatment could be carried out. The plan of treatment to have been tried was to act upon the skin energetically by hot air-baths and other diaphoretics, in hopes that, by diverting the excretion of water from the kidneys to the skin for some time, a permanent change in the action of the kidneys might be reduced.

PURULENT PERICARDITIS AND PNEUMONIA.

R. E. R., aged 21, adm. Feb. 15th. Family history good. Patient had acute articular rheumatism three years ago. Been in ordinary health since then until six weeks ago, when he began feeling unwell with slight chills, and after two weeks of malaise, he developed acute articular rheumatism again. Treated with salicylate of soda, and in a few days the pain and swelling left the joints. Two weeks ago his physician informed him that he had pneumonia. He had had no chill or cough, or any symptoms of an attack of pneumonia. He was examined on admission, and found dulness on percussion, with bronchophony, broncho-vesicular respiration, and subcrepitant râles heard over the lower lobes of both lungs on auscultation. The dulness over the lower lobe of right lung approached flatness. Diagnosed as a case of double pneumonia, and put upon usual treatment.

On auscultating the heart, a slight friction sound was heard, an aortic obstructive murmur, and the heart was found to be enlarged.

The exaggerated respiratory murmurs disguised the heart sounds very much.

For the first four days the temperature of the patient remained low, and he steadily improved. On the evening of the 19th, the patient's temperature, without any ascertainable cause, suddenly went up to 103½°; pulse, 120. During the next day, temperature remained at 103½°; some dyspnœa. In the evening, temperature, 105°; pulse, 135; respirations, 40. Quinine and digitalis had had no influence on the temperature and pulse thus far. The next morning, the 21st, temperature, 105½°; respirations, 45; marked dyspnœa; heart beating in a *very irregular, rapid, and tumultuous manner; pulse could not be counted.* Complained of pain in the precordial region. Two leeches were placed over the apex of the heart, and 25 grains of quinine administered. In twenty minutes the heart was beating regularly; pulse, 120—full, and regular. In one hour from the time of applying the leeches and giving the quinine, the temperature had fallen from 105½° to 101½°; pulse, 120; respirations, 26.

The temperature did not rise again above 102, and he appeared quite comfortable. In the evening he was delirious, and raised himself in bed in spite of the efforts of an attendant. Immediately he fell back and expired.

Autopsy.—Right pleural cavity contained eighteen ounces of clear serum. The lower lobe of right lung was consolidated, partly by circumscribed pneumonia, and around this hepatized lung. Lower lobe of left lung was consolidated completely, but apparently not by pneumonia. It had a brownish-red, mottled appearance, such as is caused by long-continued congestion.

Heart and pericardium together weighed forty ounces. The pericardium was greatly thickened, in some places being one-fourth of an inch in thickness, and attached in many places to the heart. On opening the pericardium, about two ounces of thick yellow pus ran out. The external muscular layers of the heart were all dissected out, in some places to the depth of one-fourth of an inch, so that the heart had a remarkable shredded appearance.

The cavities of both ventricles very much enlarged, and the walls of the left ventricle greatly hypertrophied. The walls of both ventricles were in a state of fatty degeneration, the muscular tissue having a soft, gelatinous appearance. Small vegetations on aortic valves. Liver enlarged, and contained evidences of congestion.

Evidences of congestion in the other abdominal regions.

Some of the points of interest in this case would seem to be these:

First.—A case of purulent pericarditis associated with articular rheumatism and pneumonia. Purulent

pericarditis is rare, except as secondary to septicæmia, or puerperal fever, etc.

Second.—The presence of all the physical signs of pneumonia in both lungs, and yet the post-mortem revealing typical pneumonia in but one lung; the intense congestion giving rise to hepatization of the lungs.

Third.—The very extensive heart lesion that existed without giving rise to symptoms that pointed particularly to that organ, until a short time before death.

Fourth.—A heart that has been diseased and hypertrophied of old would seem especially liable to undergo degeneration when a disease sets in accompanied by a high temperature, as in pneumonia, or typhoid fever. Thus a former rheumatism may influence the prognosis, and indicate special efforts to control high temperature in a subsequent acute disease.

Fifth.—The soothing influence on the heart of local blood-letting. On the morning of the 21st, his temperature was 105½°; respirations, 45; heart beating so rapidly and tumultuously that pulse could not be counted. About one-half ounce of blood was drawn by two leeches placed over the region of the heart, and in a few minutes the pulse was 120 per minute—full and regular; dyspnœa and pain gone. This result came about too quickly to be due to the quinine administered.

The soothing influence of local blood-letting we have seen manifested in other diseases. In a case of acute pleurisy, where the temperature was 105°, the pain excruciating, and only partially relieved by opium, the application of a single leech over the painful side relieved the pain almost instantly, and for a very long time. The same relief from the application of a leech is obtained in the pain of pneumonia.

Cerebral Congestion and Local Blood-Letting.—The influence of local blood-letting on the cerebral circulation was manifested in a case of cerebral congestion. The patient had softening of the brain from atheroma of cerebral arteries, and clot in the middle cerebral. Cerebral congestion set in suddenly one evening. The temperature ran up to 105½°; pulse, 140; respirations, 52 per minute; pupils dilated; breathing stertorous; face scarlet—in short, the symptoms of dangerous cerebral congestion. Leeches were placed behind the ears, and an ice-cap to the head. No other treatment was employed. The symptoms abated at once, and in thirty minutes the temperature fell to 102°; pulse, 115; respirations, 30 per minute. After a few hours the patient was in his usual condition.

Treatment of Facial Neuralgias.—In the treatment of facial neuralgias, migraine, and sick headaches, we have found nothing so satisfactory as croton chloral. We have tried the usual remedies—gelsenium, morphine, blisters, etc.—but with indifferent success. Lately we have used the croton chloral, as recommended in the *Lancet* and *Practitioner*, and with excellent results. The croton chloral is given in solution with elixir calisaya; five grains three times per day for a week. When taken in this manner the habit of the neuralgia is broken up, and a permanent cure frequently results.

Diagnosis of Paralysis of the Muscles of the Forearm.—To distinguish saturnine paralysis from paralysis produced by an affection of the radial nerve, M. Hardy points out one characteristic sign. In radial paralysis the *supinator muscles* are affected as well as the *extensors*, while in lead paralysis the extensors only are affected, and this explains why the patient can carry the head supine.—*Med. Press and Circular.*

Progress of Medical Science.

Recurring Chancre of the Penis followed by Epithelioma.—On Dec. 13, a man, aged 65, was admitted into King's College Hospital, with the following history: Seven years before, he contracted a chancre, which was followed in a month by a secondary rash on the skin, sore throat, and "cramps" in the legs, which were worse at night. The chancre gradually healed, but twelve months afterwards it reappeared in its old site after a drinking-bout. It healed up again within three weeks. After that date the chancre recurred four or five times. The patient stated distinctly that the reappearance had always been preceded by drinking-bouts, and that it had never been due to any fresh sexual connection. The chancre always disappeared again within a month. The secondary rash also reappeared four or five times, but not necessarily coincidently with the chancre. No family history of cancer was obtainable. Six weeks before admission, a sore appeared in the usual site. Instead, however, of healing up at the usual time, it had spread; it had also been the seat of very severe pain, a symptom which had not been present previously.

On admission, dark-brown stains were found scattered over the chest and abdomen. The left half of the glans penis was extremely hard throughout. On the surface it presented an irregular, eroded, and slightly nodulated ulcer, the base of which was extremely hard and covered in parts with a greenish slough. The edges were raised, everted, and slightly nodular. There was very little discharge. The hardness extended backwards and involved the anterior half of the penis, gradually diffusing into the normal tissue. The part was very painful and tender on pressure. Along the root of the penis there was an irregular, interrupted, and painful cord of hardness. The glands in the groin were hard and lobulated, and a few seemed of larger size than those usually met with in syphilis. The patient was thin and cachectic. Amputation of the penis was proposed, but the patient would not consent to it.

In connection with the above case, the following case of epithelioma following buccal psoriasis is of interest: The patient, a man 45 years of age, had suffered for five or six years from a tumor of the vault of the palate. At the outbreak of the malady, the lesion consisted of a small crack, a sort of erosion, and at the same time the patient discovered the existence of a white, rather thick skin, covering the whole of the inferior face of the soft palate. He had smoked a pipe for twenty years, and for fifteen years had been affected with buccal psoriasis. When admitted to the *hôpital des cliniques*, the whole of the palatine mucous membrane on the right side was replaced by a red, flabby, fungous mass, which terminated a little in front of the great molar. It also extended a little over on the left side. In the median line there was a small fistulous opening into the nasal fossæ. The tumor was not painful, but interfered somewhat with deglutition. A little below the angle of the jaw there was a swollen gland, a little larger than a hazel-nut. The tumor had latterly grown rapidly, and the patient had become a good deal emaciated. As anti-syphilitic treatment proved useless, Mr. Broca performed resection of the superior maxilla on Nov. 27, 1876. All the diseased parts were removed, but the soft palate was left intact. The microscopical examination of the tumor showed that it belonged to the class of tubular epitheliomata. The bony lesion at the site of the fistula consisted in a simple suppurative osteiti .

The mucous membrane covering the floor of the nasal fossæ was thickened, infiltrated, and vascular, but did not contain epithelial proliferations like those found on the vault of the palate.—*The Lancet*, March 10th, and *Le Progrès Médical*, Feb. 17, 1877.

A Vaso-Motor Neurosis in Hysteria.—Dr. Armaingaud recently had under treatment a hysterical patient, suffering from cervico-brachial neuralgia attended by convulsive attacks, in whom these symptoms were replaced by attacks of sopor, which gradually became regular, and alternated with other phenomena. For example:

1. A first attack of sopor would come on at a quarter to eleven in the morning, and last a quarter of an hour.

2. At a quarter to two a second attack of sopor would come on, lasting an hour and thirty-five minutes.

3. At half-past five a local congestion of both eyes would appear, and continue for two hours.

4. A *local asphyxia* of the extremities would set in during the congestion of the eyes, and disappear a few hours after it.

5. At five minutes past six a very severe attack of intercostal neuralgia on the right side would commence, and cease abruptly at half-past six precisely. This last symptom did not make its appearance until fifteen days after the cure of the cervico-brachial neuralgia. Finally, towards the end of the malady, a chromhydrosis of the eyelids was added to all the other phenomena.

During the attacks of sopor there was absolute insensibility of all parts of the body, except over a single *spinous process*, that of the second dorsal vertebra. Pressure over this point caused most intens pain. Strange to say, all the above phenomena disappeared after the application of blisters, followed by the continuous current to this point. The chromhydrosis alone persisted.—*La Tribune Médicale*, Feb. 4, 1877.

The Substitutes for Quinine.—In view of the present high price of quinine, the febrifuge *par excellence*, it may be well to remind our readers that the other and cheaper alkaloids of cinchona possess the same properties almost in an equal degree. Since 1866 the government of India has appointed several commissions to examine the therapeutic values of the different alkaloids extracted from the cinchona bark. Of 1,145 patients treated:

410 took cinchonine, and 400 were cured,
359 " cinchonidia, " 346 "
376 " quinidia, " 365 "

or in all 1,111 were cured. From these facts the commissioners at Madras concluded that the effects of the three alkaloids differed little from those of quinine, for which they can be readily substituted. Cinchonine and cinchonidia can be manufactured for one-third the price of quinine. Cinchonidia is said to agree better with some stomachs than quinine; it is also said that it does not cause cinchonism, but this is an exaggeration. In general, however, it does not cause this unpleasant symptom unless the dose be considerably above the average dose of 5 or 6 grains.—*Lyon Médical*, February 25th.

A new Theory of the Origin of Typhoid Fever.—Three years ago Dr. Stewart, of Barnsley, attended seven or eight cases of this disease in a row of cottages situated on a hill. He traced the outbreak to the decomposition of the blood from a slaughter-house in the row; the blood was allowed to flow into the common sewer, where it remained and putrefied. The waste-pipes from the sinks in the cottages were directly connected with this drain, without the intervention of any kind of trap, and the smell therefrom was often horrible. M. V. Feltz has found by experiments that putrid blood, when dried, mixed with distilled water, and injected into the veins of dogs, causes symptoms very analogous to those of typhoid fever. These symptoms were produced even when all trace of bacterial life had disappeared from the blood injected. While pondering over the above cases, Dr. Stewart's thoughts were directed to the analogies which exist between the symptoms of typhoid fever and those of certain cases of puerperal fever, which appear to arise from the introduction of the products of decomposing blood into the system through the lymphatics or veins of the uterus. Some of these cases have resembled ordinary typhoid fever of a severe type so closely that, if it were possible to have overlooked the puerperal condition, they might have been set down as cases of that fever. The local affections of the genital organs in puerperal fever seem to have obscured the true nature of these cases, by diverting attention from the ultimate general effects upon the system, and concentrating it too exclusively on the local expression of the infection. He thinks that the different channels by which the poison is admitted to the blood—in the puerperal case, by the lymphatics or veins of the uterus, in the typhoid case, by the stomach or lungs—would go far to account for any apparent variations in the symptoms. The poison, too, in the former case, is introduced in a recent and active form, in the latter, usually only after it has lain for a considerable time in the ground, and been washed or percolated into the wells.

A vast number of typhoid fever cases, however, appear to arise from the pollution of drinking water by the excrement of human beings. Now, Dr. Stewart thinks that if we settle upon the serum of the blood as the essential factor of the poison, it will be at once evident how any severe case of diarrhœa would be sufficient to produce the disease, because the liquid evacuations of severe diarrhœa is principally composed of serum of the blood, which is then placed under conditions highly favorable to the development of the putrefactive process. If both decomposing blood and the decomposing liquid evacuations of diarrhœa be capable of causing typhoid fever, then serum of the blood, which is the only component common to both, must be the poison factor. Dr. Low recently published several cases, which prove that the disease may arise from the inhalation of the emanations from fetid stools and privies. This theory of typhoid fever arising from the decomposition of the serous evacuations of severe diarrhœa accounts for the extraordinary prevalence of the fever in the months of October, November, and December, in a more satisfactory manner than any other theory. In consequence of the great prevalence of summer cholera in July and August, abundant material is furnished for the elaboration of the poison, which afterwards percolates into the wells, or is washed by the autumnal rains into the sources of the water supply. Two or three months are probably necessary for this preparation.

Dr. Stewart does not enter into a discussion as to whether the disease can have an abiogenetic origin, though the facts on which his theory is founded seem to favor that doctrine. The questions whether the fever can only arise from specific typhoid germs, which are nearly omnipresent, and may remain dormant for years only to spring into active life when introduced into a proper nidus for their development; or whether the poison may be developed from the ordinary germs existing in all decomposing animal fluids, or is elaborated by some subtle chemical change in the properties of the fluid itself, are, in his opinion, of little practical importance.—*British Medical Journal*, March 10, 1877.

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THE MEDICAL PROVIDENT SYSTEM.

We can hardly believe that the Medical Provident System will become popular in this country. Any objections which may be urged against it do not refer so much to the system itself as to the gross abuses to which it must be liable. If the operations of the scheme could be restricted to the channel in which they could do good, no adjectives would be strong enough to express commendation of the efforts of the initiators of this so-called reform. But the question we are to ask ourselves here is, do not the difficulties in the way of making the working of the plan perfect more than counterbalance the ultimate benefits to be obtained?

We start out with the assumption that a perfect Medical Provident System is desirable. We believe no one is ready to question this. What we must understand as a perfect provident system is one which limits its benefits to the really deserving, viz., to that class of respectable poor who cannot afford to pay the usual fees, and yet who do not wish to be paupers. All others should be excluded. How this is to be done is the principal question of the hour. Under the existing abuses of the free dispensary system we have very little hope that this question can be satisfactorily answered. We believe that the great majority of those who would be entitled to the benefits of the provident plan have long since been demoralized by free treatment they have received in these and kindred institutions. What would have been easy to prevent in years gone by we shall now find most difficult to cure. As the dispensaries are to blame for these abuses of medical charity the advocates of the provident scheme have a right to expect aid and countenance from them in their necessary efforts at reform. In fact, without the assistance of the free dispensaries, they can do absolutely nothing. The free dispensaries, by concerted action, have it in their power to restrict their benefits to the really poor. Their charters make the exercise of such prerogative a duty rather than a privilege. But have they done it? The question is sufficiently answered by the grossest abuses of medical charity. Are these institutions likely to do better in future? Is there a reasonable chance that more discrimination will be exercised in the treatment of cases? Judging from the past we have nothing to expect for the future.

If, however, the dispensaries choose to exercise their powers, a legitimate and hopeful starting-point will be made for the provident plan. If there is to be any promise of success for the latter it must be grafted on the present dispensary system, but, as before remarked, we by no means believe that this is even probable. And, even if it were otherwise, all good intentions would be frustrated by the college clinics, but more especially by the out-door department of the New York Hospital, where, for a dollar a month, anybody, rich or poor, can be treated without question or hindrance. It would be almost a joke for the provident dispensary men to ask the governors of the New York Hospital to aid in correcting the abuses of medical charity. If the opponents of the provident plan were in need of an example to prove the dreadful abuses to which it may be liable, they could find no more striking one than that afforded by the shameful management of this out-door department.

It is perhaps fortunate that special attention has been invited to such a system of professional jobbery as that inaugurated by the New York Hospital Dispensary just at the time when the provident plan is brought up for discussion. If it prepares the professional mind to look upon all such reforms with suspicion the result is no more than could have been anticipated. Every thoughtful man, however much he may believe in the theory, will have certain very strong misgivings before he is willing to place the theory to a practical test. The present abuses of our dispensary system are bad enough, but we shall certainly make matters worse if, in our attempts at reform, we add to our burdens those of a defective provident plan. Under existing circumstances we certainly run a great risk. What the New York Hospital has done may be done by other dispensaries, and, instead of checking pauperism, may actually place a premium upon it by making it respectable. We believe that the longer the profession deliberate over the chance of success of the new scheme the less they will be prejudiced in its favor. The suggestions offered in another column by Dr. Hanks strike at the root of the present evil, and if heeded may be the groundwork for better management. They certainly tend to correct the more flagrant abuses of dispensary practice, and after all, is it not best to put all our efforts in this direction, that we may properly prepare ourselves for the inauguration of more radical reforms? But we shall have more to say on this subject hereafter.

SCHOOL HEALTH BILL.

THE School Health Bill is making good progress, and if the Assembly Committee will report upon it in a reasonable time, there can be no doubt that the House will be prepared to act upon it at once. We have so often spoken of the importance of the measure, that it seems hardly necessary to refer to it again, except to urge its passage during the present session. The medical members of the House are well aware of the arguments which have been used in its favor, and such arguments only need be presented to the committee to carry with them conviction. Speaking in the name of the profession for the school-children, the time has come to demand the passage of such a law rather than ask for it as a legislative favor. It is a question of ordinary justice to the school-children, and must now be viewed as such. We have no doubt, however, from what we can learn, that the Assembly Committee will not be derelict in their duty. The prompt passage of the bill through the Senate augurs well for its reception in the Assembly. We would especially call the attention of Dr. Isaac Hayes to this subject, with the hope that he, as the medical representative of this city, will press the matter to its final issue.

Reviews and Notices of Books.

THE TONIC TREATMENT OF SYPHILIS. By E. L. KEYES, M.D. New York: D. Appleton & Co. 1877.

THIS work is an amplification of an article written some time ago by the author, in which he gave the results of his examinations of syphilitic blood. As is well known, the blood in the most varied diseases has latterly been examined in France by means of an instrument called the hématimètre, by which the quantity of the corpuscles can be quite accurately counted. Wilbouchewitch, in Paris, was the first to examine syphilitic blood by this means, and from his results he concluded that, in small doses, mercury increased the quantity of the red corpuscles, and was, in fact, a tonic. It was well known, particularly by the results obtained by Liégois, that mercury increased the weight of the person taking it, and the drug has long been known by many to be, in some cases, of tonic effect. These experiments, then, in some measure explain why this increase of nutrition occurs, though to our mind the fact that, upon mercury being given, the red corpuscles are increased in quantity is a very bare one, and simply a statement of cause and effect, without any attempt at explaining the intervening processes, or rather the *modus operandi*. The gist of this book is, that mercury is a tonic in syphilis, hence it must be given. To our mind this explanation of the action of mercury is, as we have said, very unsatisfactory indeed, because we believe that its action is other and different from that of a tonic; otherwise why do not our most powerful tonics cure syphilis? If mercury increases the quantity of red corpuscles in syphilis and cures it, is its action simply and wholly that stated, or is there nothing beyond this? Perhaps, if experiments are made with iron and quinine singly or combined, the same result will follow, but we all know what dismal failures these drugs produce in the treatment of syphilis, yet they are our most reliable tonics. There is something so convincing in practical demonstration in medicine, that when it occurs we are, we fear, too apt to magnify the importance of the results gained, and in consequence to lose sight of less clearly demonstrated facts which are really important.

There is something of this kind in the present publication. We do not wish to disparage Dr. Keyes's labors and results when we say that we think that the latter are far from being satisfactory, not complete, and that they are simply fragmentary. We already knew that in small doses mercury acts as a tonic and improves nutrition. All of the various cells of the tissues undoubtedly increase in quantity, as seen particularly in the increased development of adipose tissue, and muscular tissue perhaps likewise is increased as to its cell elements in the same category, and as part and parcel of the same process the blood-cells are also increased; and this results whether the tonic be mercury, iron, quinine, or fresh air. As an explanation, then, of the action of mercury that it is a tonic and increases the blood-cells, is no explanation whatever of its action in syphilis, but simply a pleasing practical demonstration of one and perhaps the minor part played by mercury in the whole process. Dr. Keyes very properly advises the long-continued use of mercury, and it is well known that the most experienced men in the treatment of syphilis hold this view, first clearly put forward by Fournier. Besides the subject-matter proper of the action of mercury, the directions are given for the treatment of the various lesions of syphilis.

THE MICROSCOPIST: A Manual of Microscopy and Compendium of the Microscopic Sciences, Micro-mineralogy, Micro-chemistry, Biology, Histology, and Pathological Histology. Third Edition. Rewritten and greatly enlarged. With two hundred and five illustrations. By J. H. WYTHE, A.M., M.D., Professor of Microscopy and Biology in the Medical College of the Pacific, San Francisco. Philadelphia: Lindsay & Blakiston. 1877.

THE Author has aimed in this volume "to place within the reach of the student of nature a compendium of microscopy, free from unnecessary verbiage, which should aid in every department of natural science." In the attempt he has been moderately successful. The words employed are concise and yet perspicuity has not been sacrificed. The book is highly illustrated. Some of the plates are very good, others are only tolerably good, and a certain portion we are inclined to regard as rather poor. The first six chapters are devoted to the microscope, its history and importance, its accessories, its use, and the modern method of examination, mounting, and preserving microscopic objects. We can but believe that some of these so-called "modern methods" are surrounded with an aroma of the past which should have excluded them from the third edition of an advanced work upon microscopy. For example, the process necessary to mounting objects in balsam or dammar varnish, as given on page 79, is absolutely unnecessary, and we were glad to see that it was supplemented by a hint concerning another method which we believe to be far superior. Had the author given as concise a description of the method hinted at as has been given of the process which seems entirely unnecessary, he would have added materially to the value of his book and avoided exciting in the mind of the student a contempt which is profanely at variance with the true spirit of microscopy. The seventh, eighth, ninth, tenth, and eleventh chapters are devoted to mineralogy, geology, chemistry, biology, vegetable histology and botany, and zöology. The

hapters contain much that is interesting and readily comprehended by the student.

The Microscope in Animal Histology is the title of he twelfth chapter, in which are considered simple issues, compound tissues, and organs of the body. The anatomical descriptions, in the main, are clear and meet the end designed in the construction of the book. The illustration of the uriniferous tubules varies somewhat from what we had supposed was the modern representation, and yet it may not be wise to say that t is incorrect. Just what the author means by the statement that "the peptic glands are blind tubes" s not quite clear, and we dare say will lead to some confusion in the mind of the reader.

The last chapter is devoted to the use of the microscope in practical medicine and pathology, and is in good keeping with those by which it has been preceded. The book is printed upon good paper, in a large clear type, and is well-bound, thus reflecting credit upon its publishers. In the absence of more extended treatises it is a convenient hand-book for students and amateurs in microscopy.

A Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M.D., one of the Consulting Physicians of the Pennsylvania Hospital; Consulting Physician to the Children's Hospital, etc., etc., Philadelphia; and William Pepper, A.M., M.D., Prof. of Clinical Medicine in the University of Pennsylvania, etc., etc. Sixth Edition, Revised and Enlarged. Philadelphia: Lindsay & Blakiston. 1877. 8vo, pp. 1,012.

The excellence of this work is so well appreciated by he profession, and its reputation as a reliable authority s so well established, that it is unnecessary in noticing his edition to do more than state in general terms the dditions and improvements which have been made. Besides undergoing a careful revision as a whole, ome articles have been rewritten, as in the case of he one on cerebral congestion, and new articles introduced upon Night Terrors and Epidemic Cerebro-pinal Meningitis. We recommend the work as the est and most comprehensive one upon the subject in ur language.

Reports of Societies.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting April 20, 1877.

Dr. Charles M. Allin, President, in the Chair.

THE ABUSE AND USE OF BROMIDES.

Dr. E. C. Seguin, in an interesting and valuable paper, discussed the above subject under two heads: 1. Bromism, or intoxication by the bromides. 2. A statement of his own method of using the bromine salts in the treatment of epilepsy and other neuroses. Since the bromides had been brought into use in the treatment of neuroses, especially hysteria and epilepsy, by Sir Charles Locock (1857), and systematized by Brown-Séquard, they had been employed in the treatment of an almost endless list of diseases and symptoms. The general use of the various bromides was largely empirical, the medicine being prescribed because of its quieting effect, and regardless of its physiological action.

Since 1867 experimental physiologists had been making researches regarding the effect of bromides upon the healthy organism, and the most important conclusions reached were two in number. By some the bromides were believed to act by causing contraction of the arterioles and consequent diminution in the amount of blood in the nervous centres; while others claimed that they affected the nervous tissues directly. There was a general agreement, however, that the physiological result of the action of the bromides was lessened irritability of the nervous centres, especially in the motor tract.

Dr. Seguin believed that the bromides acted mainly by affecting the anatomical elements (ganglion cells chiefly) of the central nervous system. His belief was based upon physiological experiments in animals, clinical observations in man, and largely by the phenomena of bromism, which could hardly be explained by the vascular theory of the action of the bromides.

It was believed to be chiefly in consequence of the empirical notion that the bromides were indicated whenever there was excitement, aided probably by the extreme application of certain theoretical views regarding the physiological importance of changes in the amount of blood in the brain and spinal cord, that there had been, and still continued, an abuse or over-use of the various bromides. Cases were not infrequent in which a condition of impaired nutrition and nervous atony had been brought about and continued for months or years by the use of these medicines.

At this point Dr. Seguin divided his remarks into three sections: 1, concerning the general description of mild and of severe bromism; 2, respecting the complication which bromism might cause in diagnosis; and 3, with reference to the legal aspects of bromism.

VARYING DEGREES OF BROMISM.

In a number of cases Dr. Seguin had observed the following symptoms superadded to the legitimate symptoms of the disease: general debility, with weak pulse and coldness of the extremities; tendency to stupor; slight difficulty in speaking; the bromic breath, and acne. Those patients were weak, anæmic individuals, who had been taking the bromides for the relief of certain head symptoms, gratuitously supposed to be due to cerebral congestion. In some cases moderate doses of the drug had been taken for long periods of time, with frequent temporary relief to certain symptoms. All the time, however, the general condition of the patient had been kept below par, in spite of tonics and selected food. The same mild bromism had been noticed in some cases of hysteria and hystero-epilepsy, without any actual improvement. Injurious effects had been seen from the prolonged use of the bromides in the treatment of melancholia, a disease in which cerebral nutrition was quite surely lowered and perverted. Reference was made to a large class of patients who, without definite disease, suffered from nervousness, inability to sleep, queer sensations about the head, and who were inclined to constantly over-estimate their symptoms. To such patients the physician or druggist was very apt to say, "Take a dose of the bromides." It might be said that the administration of the bromides in such manner did not produce positive ill effects; but to that assertion Dr. Seguin replied by saying, *first*, that from what was known of the physiological effects of the bromides, such dosing must produce a general lowering of vitality which few patients could tolerate; and, *second*, that, on general principles, physicians were in duty bound to give no superfluous or non-indicated drug to their patients.

Allusion was then made to the more severe forms of bromism, in which the condition might obtain the dignity of a definite morbid state, have a clear symptomatology, a well-known course, and, as the doctor was disposed to believe, a central lesion. The symptoms of the more severe forms of bromism might be so aggravated as to simulate dementia, mania, or general paralysis of the insane, and even death might ensue from debility.

Dr. Seguin drew special attention to the resemblance between bromism and general paralysis of the insane. In both there was tremor of the facial and lingual muscles, producing a peculiar vibratory speech; in both there was an uncertainty in the performance of certain movements, as walking or using the hands for fine work; in both there was failure of intellectual force and of memory. Even somewhat exalted notions, though rarely, might be present in bromism. In general paralysis there were other important symptoms, such as contraction and irregularity of the pupil, sexual excitement, peculiar epileptiform seizures, remarkable remissions in the symptoms, and often good physical health, with tense arteries; all those symptoms being absent in bromic intoxication.

Severe bromism fortunately was rarely seen except in the early stage of the treatment of obstinate epilepsy. Bromism had been proposed as a cure for the opium habit, and the paper written by Dr. Schweig, of New York, upon that subject furnished a valuable study of the severe effects of the bromides.

BROMISM AS A COMPLICATION IN DIAGNOSIS.

Under that head reference was made to a case reported by Voisin. The patient had been under treatment for epilepsy, and, as his physician thought, becoming insane, was sent to Paris. He had been taking during some months bromide of potassium in doses of 90 to 120 grains. The patient was in a state of violent mania, and was removed to the asylum, where his case was looked upon by the officers of the institution as one of general paralysis of the insane. After the cessation of the bromides and the adoption of proper treatment, the man, at the end of thirteen days, was sent to his home in the country quite well.

Dr. Sequin then gave the history of a case which came under his own observation, and in which the addition of bromism to the other symptoms had led to the diagnosis of cerebral lesion of the gravest kind, when really only the basal dura mater was involved. The bromides were withheld and the iodide of potassium substituted, to give the patient the benefit of a doubt regarding the presence of a specific element. The symptoms of cerebral lesion passed away in a few days, and the local symptoms gradually disappeared, except the atrophy of the optic nerve.

THE MEDICO-LEGAL ASPECT OF BROMISM.

Bromism, although it has not been brought into the courts, might at some time appear under several circumstances.

First, with reference to the responsibility of the physician administering a medicine which produced such mental and physical debility as to expose the patient to various mishaps. For instance, a patient suffering from acute bromism had fallen asleep in a railway station and was robbed of four hundred dollars.

Second, with reference to the responsibility of the patient for committing criminal acts while suffering from bromism.

It was believed to be perfectly possible for such patients to take articles not paid for, through defective memory; to be mistaken regarding the identity of persons, and thus be led to be abusive, etc.

Third, with reference to the legal capacity of brominized persons.

In some cases of bromism the stupor, loss of memory, and aphasiform difficulty were so great that the patient was as truly *non compos mentis* as if he had a natural secondary dementia.

In certain cases it would be very difficult to reach a correct decision, because the judgment and general intellection were remarkably well preserved behind a display of superficial symptoms; and it also might be difficult to determine how much of the mental impairment depended upon the patient's antecedents, and how much upon the disease for which the medicine was taken.

Fourth, with reference to the production of death through bromism. There was a possibility that the procedure might be repeated with criminal intentions; perhaps for the purpose of getting rid of an incurable invalid.

METHOD OF USING THE BROMINE SALTS IN THE TREATMENT OF EPILEPSY AND OTHER NEUROSES.

1. The prolonged use of bromides was contraindicated by congenital feebleness.

2. The bromides were well borne by persons of fairly full habit and good nervous power.

3. The bromides were indicated in cases of abnormally great irritability of the nervous system in its motor (muscular and vaso-motor), and ideational tracts.

4. The contraindications above named were to be much less regarded in the management of that formidable neurosis, epilepsy.

5. Epilepsy was regarded as the only disease which justified the deliberate production of a degree of bromism for its cure.

Dr. Seguin's method of prescribing the bromides in the treatment of a case of "idiopathic" epilepsy was the following:

Two solutions were employed.

℞. Potassii bromidi..... ℥ i.
Ammon. bromidi..... ℥ ss.
Aquæ font..... ℥ vij.
M.
S. To be given by the teaspoonful.

And

℞. Sodii bromidi..... ℥ i.
Ammon. bromidi..... ℥ ss.
Aquæ font..... ℥ vij.
M.
S. To be given by the teaspoonful.

The quantity administered was, as a rule, so divided as to give by far the largest dose in the evening. The bromide was cautiously increased, still keeping the nocturnal dose the largest, until slight bromism was produced. It was usually necessary to maintain slight bromism for months, but just as little was to be given as would prevent the attacks. The precise quantity required must be studied in each case. Children tolerated the bromides, as well as the iodides, in relatively large doses. It was regarded as important to thoroughly dilute the bromides in order to facilitate their absorption—the dose to be taken in a wineglassful or half a tumblerful of water. Under no circumstances should the bromides be discontinued; they might be *diminished*, but not *stopped* until the word *cure* could be pronounced. They should be continued at least three years after the last attack. The adjunct treatment consisted in the use of measures to prevent the acne to a certain extent, such as the occasional use of

arsenic, sulphur ointments, mercurial plaster, and alkaline lotions; to correct the general debility or slight paresis, by the use of strychnia, nux vomica, oxide of zinc, and quinia; to relieve the dizziness by the inhalation of nitrite of amyl, by stimulants, and by quinia; regulating the patient's diet and hygiene, and the use of cream, cod-liver oil, iron, quinia, phosphorus, strychnia, with nitro-muriatic acid, wine, beer, or whiskey. In certain cases such medicines as acted more directly upon the morbid state of the nervous centres were associated with the bromides, and the favorite among those was belladonna. In the treatment of cases of epilepsy in which a definite causative lesion could be made out, the bromides were used simply to combat the habit.

In the treatment of other neuroses, Dr. Seguin had used the bromides sparingly, and never continuously. Bromism should not be produced in the treatment of *hysteria*. *Delirium tremens* might probably be shortened by the free use of the bromides.

Many cases of *insomnia*, treated upon the purely hypothetical indication of causing anæmia of the brain, might be much more quickly relieved by chloral, or by a glass of ale, or by correcting indigestion, than by the use of the bromides. Sleep was believed to be due partly to the general waste of tissues and the accumulation in the blood of the products of retrograde metamorphosis, and partly to the exhaustion of the cerebral tissue itself. The anæmia observed in the brain during sleep was regarded as a consequent phenomenon in obedience to the general law that a tissue in repose contained less blood than one in action.

In the treatment of *insanity*, the use of the bromides was recommended only to meet such indications as a tendency to epileptiform attacks, or abnormal sexual excitement, or great nervousness not caused by delusions. Favorable reference was made to the use of bromide of potassium before administering ether or opium with the view of preventing nausea and vomiting. Special attention was called to the use of bromide of ammonium in the treatment of *hay-asthma*—used as a gargle and to wash out the nasal passages several times a day with a weak solution of the same salt. The gargle was of the strength of ʒ i. or ʒ ij. to the ℥ i. of water; the solution for the nares from 20 to 30 grains to the ℥ i. of water.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 23, 1877.

Dr. John C. Peters, President, in the Chair.

THE REVISION OF THE UNITED STATES PHARMACOPŒIA.

The discussion, relating to the modifications required in order that the Pharmacopœia of the United States might meet the wants of the medical and pharmaceutical professions, was opened by

Dr. Edward Curtis. He believed that the revision of the Pharmacopœia naturally belonged to the medical profession; that it should be placed under the control of that body which most perfectly represented the medical profession in this country, namely, the American Medical Association.

As at present constituted, the Convention for revising the Pharmacopœia met but once in ten years. The American Medical Association met annually, and certainly it was desirable that the organization having control of the book should meet sufficiently often to keep it in full pace with the advance made in our pharmaceutical and therapeutical knowledge. To do that, an interval of ten years between the sittings of the Convention was altogether too long.

Another disadvantage associated with the present organization was, that the work was left for a committee to perform, the Convention dissolving for ten years. Suppose that such committee did not perform the labors assigned to it or carry out the instructions of the Convention, there was no redress for the profession until the close of the decade and the assembling of another Convention, unless some measure was instituted which should produce another book.

The matter being placed under the control of the American Medical Association, any neglect to obey instructions could be remedied yearly. Practically, the organization which had the Pharmacopœia in charge did not possess a national character, and the chances were that the book would come from a body which represented only a small portion of the country. The American Medical Association, which met yearly, was regarded as a much more perfect representation of the medical profession of the entire United States than the Pharmacopœial Convention, which assembled only once in ten years.

Dr. Curtis presented resolutions, which were referred to the Comitia Minora.

Prof. P. W. Bedford (pharmacist) remarked: It would seem from the argument made by Dr. Squibb in his circular, and set forth by Dr. Curtis, that the Convention which met every ten years to revise the Pharmacopœia had a certain definite sphere in which to act, and that that sphere of action continued from decade to decade. Such was not the fact. Each decennial convention prescribed its own rules for the performance of the labor assigned. Prof. Bedford was of the opinion that whatever of good there might be in the plan given by Dr. Squibb could undoubtedly be secured equally as well from the organization already in existence. For the real work of revising the Pharmacopœia finally reached a committee, and it would be the same should the Pharmacopœia be transferred to the American Medical Association. The final committee, in either instance, whether appointed by the present organization or in accordance with the new plan, would doubtless be composed of men who would be selected because of their adaptation and qualification for the work. But was the American Medical Association better qualified to secure the formation of a proper committee than a special convention called for that purpose? Prof. Bedford was not able to see wherein the committee, composed of men appointed by the new plan, could do the work better than the final committee appointed from the organization already in existence. He was unable to understand how the new departure was to secure a better Pharmacopœia. He did not claim that laws should be held to as unchangeable, but he did believe that the organization already in existence would proceed to form a Pharmacopœia, and the result would be that we should have two Pharmacopœias.

There was no reason why the present organization was not as much a national organization as the one contemplated by Dr. Squibb's plan. Various societies had the right to send delegates, and the representation could be from all parts of the country.

It should not be understood that the committee now in existence under the old organization—consisting of fifteen members—was the final committee to make the revision of the Pharmacopœia; it was simply a committee appointed to perform certain work, a labor of love, which would facilitate the labors of the final committee. It was to facilitate the work without

assuming the responsibility of revising and issuing the Pharmacopœia.

Dr. W. H. Thomson was of the opinion that both Pharmacopœia and Dispensatory were sadly in need of revision to an extent almost equivalent to a recast. The mere perusal of the Dispensatory was sufficient to convince one of the advancement which had been made in medicine in every conceivable direction. For example, one of the simplest of all the vegetable medicines was there mentioned as an alterative, a tonic, a febrifuge, a diuretic, a diaphoretic, and an expectorant. It was very much like recommending a man for a position by saying that he was a good banker, a good watchmaker, would answer as a dentist, and could serve as a sea-captain. The description of the action of medicines given showed that the greater part of the work in the Dispensatory, rather the ideas and ignorance, were more than one generation entombed and kept in perfect preservation like ferns in beds of coal.

If the Pharmacopœia was to be a book for physicians alone, to assist them in the art of prescribing medicines, the American Medical Association, as representative of the medical profession, should assume the control of the work. If, on the other hand, it was to be a book to be used by druggists, and others who might have to do with the purchase and preparation of drugs and medicines, it did not belong so much to the medical profession as to the pharmacists. The more distinct those two things could be kept the better would be the results obtained.

If the control of the Pharmacopœia was retained by the pharmacists, the assistance of the physician was necessary, for the reason that, within the last ten years, a commercial element had been developed among druggists in the way of preparing and dispensing elixirs, special preparations of cod-liver oil, extracts, etc. Such an element came very near to the dispensing and sale of patent medicine. That condition of affairs should be regulated, not only by the Pharmaceutical Association, but, if necessary, by an official manifesto upon the part of the medical profession, and the question decided as to how far such preparation and sale should be carried. Certainly, any well-known and widely-used article, now sold as the exclusive preparation of any one druggist, should have its formula placed in the Pharmacopœia, so that it might be used by all druggists. The medical profession should hold the Pharmaceutical Association to the observance of such rules as would regulate the present condition of affairs in that particular.

Dr. H. G. Piffard remarked that the Pharmacopœia of the present time was not a book upon which the druggist could wholly rely, but that the Dispensatory was a necessity. In the Pharmacopœia there were scarcely any tests; no description of vegetable medicines, such as would enable a purchaser to determine whether he was obtaining the proper article; no indications as to whether proper manipulations had been performed in the compounding of medicines; no directions with reference to protecting certain articles against the influence of light; in short, the book contained but very little of what the druggist really needed.

We should hesitate before trusting the old organization with its revision. For, at the last Pharmacopœial Convention, certain instructions were given to the committee relating to the abolishing of measures of capacity, and adopting parts by weight, but those instructions had not been carried out. What was the guaranty that the instructions of the Convention would be better obeyed in the future? It seemed to him that the medical profession should unite in urging the American Medical Association to establish a Pharmacopœial Council, in accordance with the plan proposed by Dr. Squibb. A council of that kind would be severed from all personal interest, and would best serve the interests of the medical and pharmaceutical professions.

The plan presented by Dr. Squibb was urged in preference to the older organization, and until some better one should be brought forward.

Mr. Paul Balluff, President of the College of Pharmacy, favored retaining the revision of the Pharmacopœia in the hands of the old organization. He believed all the objections to the book as it now stands, to the organization as it now exists, could be easily overcome without the formation of a new council, and thus any clashing of interests could be avoided. The deficiencies of the last edition could be supplied, the difficulty of obtaining the services of competent men without pay could be overcome, and the objection that the last edition was not followed at once by its commentary, the U. S. Dispensatory, could be easily answered. He therefore urged that the work be conducted upon true democratic principles, and the old plan be tried once more.

Dr. A. B. Crosby believed that the plan for revision submitted by Dr. Squibb would obviate very decidedly some of the evils which had been complained of under the old sy tem, and certainly would remove from the Pharmacopœia very grave suspicions, whether justly or unjustly, which had been cast upon it.

Prof. Bedford believed our Pharmacopœia to be as full as any other; did not think that there was any more league between it and the U. S. Dispensatory than between any other two works; was not able to see where the experience especially adapted for such work had been obtained by medical men of the army and navy; and believed that the old organization could do anything and everything which that proposed by Dr. Squibb could perform.

Dr. H. J. Menninger (pharmacist) maintained that the societies which sent delegates to make up the commission as it stands for revising the Pharmacopœia —namely, medical colleges, State medical societies, etc.—did not represent the medical profession of the country. The medical schools might be fountains of knowledge, but were not representative bodies of the medical community. On the contrary, the American Medical Association was a society which represented the medical profession of the United States.

The physician created the demand for medicines therefore should take the initiatory step in saying what preparations should be prescribed. For the mode of making those preparations the pharmacist was a necessity. Dr. Menninger regarded Dr. Squibb's plan as thoroughly representative, and one which would subserve the best interests of both professions.

Dr. F. A Castle spoke with reference to the deficiencies in the Pharmacopœia, and the lack of guaranty that the future edition under the old organization would be any better than the one already in existence. The medical schools had long since ceased to be the representatives of the medical profession hence an organization composed of delegates from such sources was much less democratic than one formed after the plan presented by Dr. Squibb.

Dr. F. Hoffmann (pharmacist) favored the plan which had been brought forward by Dr. Squibb for revising the Pharmacopœia.

Dr. Gouverneur M. Smith was impressed with the democratic plan suggested by Dr. Squibb, and also believed that eminent ability was to be found among the medical men of the army and navy.

The PRESIDENT gave a brief history of the origin of the Pharmacopœia in this country.

There were *seventy* delegates in attendance upon the first National Pharmacopœial Convention, held in Washington, in 1820. At the present time only three States were represented in the Convention.

DR. PETERS did not regard the book of 1870 as good as that of 1820. In 1830 Philadelphia obtained absolute control of the book, and had retained it until she was laboring under the impression that she owned the Pharmacopœia of the United States.

When the English Pharmacopœia was revised, copies were sent to eminent medical men for suggestions, additions, and alterations, and when every alteration had been incorporated the book was printed. We had never had anything of that kind emanating from Philadelphia in connection with our Pharmacopœia.

The Doctor was of the opinion that the U. S. Pharmacopœia should approach more nearly to a national work than any other medical or pharmaceutical publication.

It was resolved to print the discussion, and continue it at an adjourned meeting. The Society then adjourned.

Correspondence.

A PLAN FOR CORRECTING THE ABUSE OF MEDICAL CHARITIES IN THE CITY OF NEW YORK.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Notwithstanding the great amount of good done, and the many really worthy and needy persons who receive help from our charitable institutions, it is well known that a large per cent. of patients who apply at the Dispensaries for medical attendance are abundantly able to pay a reasonable compensation for what they receive. This is an evil which will continue under the present lax system of *non-inspection*. It is generally known that none but reliable physicians are connected with these dispensaries, and that whoever applies will receive as good treatment as can be obtained in the city. For this reason this class of patients who are able to pay, but are unwilling to do so, or rather are willing to be classed as paupers, freely come to the Dispensaries for their medical advice, knowing that their pecuniary status will not be questioned. This indiscriminate bestowal of charity, which thus encourages pauperism, is the fault of the institutions, not of the physicians, and the remedy, which is plain and simple, lies in the power of the institutions to effect.

I have considered the subject in all its bearings, and have broached this plan, which forms the motive for this paper, at different times during the past three years to prominent physicians and several gentlemen connected with various charities in this city. From such discussions, and from a large experience in Dispensary practice, I am convinced of the feasibility of the following plan:

A committee or General Board should be appointed from the Board of Trustees or managers of every charitable Dispensary and Hospital, including the Board of Charities and Correction, who shall apportion the city into *districts*, and appoint a *visitor* for each district; said visitor to be subject to such rules, regulations, and *salary* as the Board may consider proper. It should be agreed upon by the different institutions that no person should be allowed to apply at a Dispensary or charitable institution without first having made application to the district visitor, who shall ascertain the pecuniary condition of the applicant, and such other information as may be required. Upon proof of the need of the applicant the visitor shall furnish an admission ticket for some *one* institution to be designated by the applicant, wholly independent of the prejudices of the visitor. The visitor should, however, be able to give such general information, if required, concerning the different institutions, as would be honorable and judicious. For entrance to the hospitals the applicant would, in addition, be approved by the Superintendent of the out-door poor. Each visitor should reside in his or her district, accessible to applicants, and should keep a record open for the inspection of the General Board. The salary of each visitor should be paid by a *pro rata* contribution from all the charitable institutions represented in the General Board. (It should be in proportion to the number of patients treated according to reports of the previous year.)

Patients who apply at a Dispensary in this way will be worthy of the charity extended, and pauperism will not be encouraged. It will be impossible by this means, under proper management, for *one* patient to visit three different dispensaries in one week, which is a quite common occurrence, and is certainly a most demoralizing as well as expensive custom.

This plan of district visitors has been tried and is still in force by one society, viz., the Society for Improving the Condition of the Poor; but as this is a work of charity, the visitors are members and give their services gratuitously. For the interest of the city and the mutual benefit of those institutions immediately concerned, it will readily be seen that visitors for this General Board should have a salary, as before stated.

The expenses of medical charities by this plan would ultimately be greatly reduced; self-imposed pauperism of this kind would be at a discount, if not utterly impossible, and, above all, the dignity of these same medical charities would be preserved.

H. T. HANKS.

149 LEXINGTON AV., 26th April, 1877.

COLLEGE ENDOWMENT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—"Alumnus," in Number 338 of THE MEDICAL RECORD, indulges in criticism and inquiries concerning the circular issued by the Alumni Association of the College of Physicians and Surgeons, relating to the collection of funds for educational purposes under the auspices of the College, and closes by saying: "Have the kindness in behalf of the Alumni to answer through your journal." If you will permit me to reply, I would say that the working men of the Alumni Association have presented to the Alumni of the College an appeal for funds in behalf of one branch of superior medical education, viz., Pathological Anatomy, for the benefit of Alma Mater and her present and future offspring. All that has even been said in Executive Council on this subject has been fully laid before all the Alumni who chose to attend the annual meetings of their own Association.

There is a pretended sincerity of innocent inquiry and a captious criticism in the letter of "Alumnus," to which all loyal graduates of the College of Physicians and Surgeons will feel disposed to take exception. Honest indignation will ask in return, where is the motive for, and what possible *concealment* is sought to be effected by a circular framed by the Executive Committee of the Association, under direct instructions

from the Board of Counsellors of the Alumni Association, and submitted by the Council for the information of the Association at its last annual meeting, at which meeting the circular was duly ratified and ordered to be printed and distributed. It is not to be supposed that any appreciative and filial graduate requires information on the subjects embodied interrogatively in the letter of "Alumnus," and information of the kind therein sought concerns none others.

Respectfully,
Secretary of the Alumni Association.

A PROSTATIC GUIDE.

THE CABLE STYLET.

To the Editor of The Medical Record.

Sir.—Dr. Otis's description of his ingenious flexible stylet, to facilitate the introduction of a soft rubber catheter through a distorted prostatic urethra, which appeared in the Record of April 21st (p. 255), induces me to bring to the notices of the profession a similar instrument which I have been using for the same purpose during the past two years.

Squire's clever vertebrated cathether is not devoid of danger—in the hands of a patient at least. Some years ago a well-known instrument-maker of Philadelphia informed me that he had a letter from an old man in the country, asking for a Squire's catheter. The applicant said he liked the instrument, and had long used it upon himself, but the chain had broken in two previous instruments, leaving all the links behind in the bladder—therefore he wanted another one!

In most cases of prostatic obstruction the soft rubber catheter finds its own way, and is an instrument absolutely safe in any hands. A little extra rigidity, which does not at the same time interfere with its perfect flexibility, is all the instrument requires in occasional difficult cases—of course where the obstacle is prostatic deviation, not urethral stricture.

An instrument which I have found to do all that was required as a flexible stylet is a portion of the cable of S. S. White's dental engine. This cable is a twisted rope made of one central and eight encircling very fine wires. It is a little smaller than Dr. Otis's guide, as made by Tiemann, and considerably more rigid than the flexible part of the latter. It is absolutely flexible in all directions, amply so for all cases I have encountered, not apt to get out of order, perfectly safe, and costs (being half a cable) exactly 75c. retail. A cable of five wires much smaller, more flexible, but less firm, has been made for me by S. S. White. Tiemann will have these guides on hand in the future, some of them flexible throughout, others rigid half way, and to sell either variety for 75c. or less. I propose to have a fine guide covered with rubber to use as a flexible probe.

Dr. Otis's new instrument is in principle much the same as the old one I have been using, and perhaps has some advantages, but the latter is cheaper, smaller, more durable (I should judge), and has stood the test of a couple of years' trial. It would be well to try both in difficult cases, before being absolute about ther respective merits.

E. L. Keyes.

210 Madison Av., April 20, 1877.

Medical Society of New Jersey.—The next annual meeting of the Medical Society of New Jersey will be held in the Assembly Rooms, Taylor Hall, at Trenton, on Tuesday, May 22, 1877, at half-past seven P.M., and will continue in session the following day.

Wm. Pierson, Jr., Secretary.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 22 to April 28, 1877.

Forwood, W. H., Surgeon. Assigned to duty at Columbia, S. C. S. O. 83, Dept. of the South, April 26, 1877.

McCormick, Chas., Colonel and Surgeon. Died at New York City, on April 28, 1877.

Shufeldt, R. W., Asst. Surgeon. Ordered to Fort Laramie, Wy. T., there to await further orders. S. O. 51, Dept. of the Platte, April 19, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending April 28, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
April 21.....	1	4	102	1	14	56	1
" 28	0	7	85	4	26	40	5

Dr. Harvey Holmes Gregory, who suddenly expired at his residence in Harlem, at an early hour on the 1st instant, was born Oct. 2, 1829, at Modena, Ulster County, N. Y. He was the eldest son of Milton S. Gregory and Charlotte P. Holmes, his wife. His academic education was received at the Amenia Seminary, Dutchess County; his medical, at Castleton, Vt., and the College of Physicians and Surgeons, New York, from which latter institution he was graduated in 1853. After a brief residence in Williamsburgh, now Brooklyn, E. D., he commenced the practice of his profession in Harlem when it was a mere suburban village, and there he remained until the date of his death. The doctor was thoroughly identified with the religious, educational, and political interests of his chosen residence, for the enthusiasm of his nature would not permit him to play an unimportant part in any position in life. He also thoroughly loved his profession, was active and untiring in his ministrations, warm-hearted and devoted in his friendships, candid and outspoken in his opinions. Of a rare and genial humor, he became, in truth, "the beloved physician," more careful of others' interests than his own. During an active practice he garnered up rich stores of knowledge, which he freely dispensed in conversation and at medical reunions. Original and independent, always utterly devoid of jealousies, he almost stood alone among his peers, all unconscious of his personal magnetism. He died with his harness on, the type of many a general practitioner, who lives immortal in the tender memories of his patients.

New York County Medical Society.—At a stated meeting held April 23, 1877, it was voted to grant certificates of membership to the following gentlemen: Drs. F. C. Robinson, H. A. C. Anderson, W. S. Hurd, Ernst F. T. Horst, E. C. Mann, G. A. Evans, C. M. Desvernine, W. DeF. Day, N. S. Roberts, W. S. Studley, and E. Passmore.

The paper for the next stated meeting will be read by Dr. H. B. Sands, upon "The Treatment of Intussusception by Abdominal Section."

Original Lectures.

PULMONARY EMPHYSEMA — ABSENCE OF ATTACKS OF SPASMODIC ASTHMA.

A CLINICAL LECTURE

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

By FRANCIS DELAFIELD, M.D.,

ADJUNCT PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE.

[Reported for THE MEDICAL RECORD.]

GENTLEMEN:—We have here a history, dating back perhaps a little more than three years, and beginning with cough and shortness of breath. The shortness of breath is pretty distinctly due to exertion, for the man at no time has suffered from attacks of dyspnœa at night, nor has he suffered from difficulty in breathing when at rest. The moment, however, he begins to walk shortness of breath commences, and before he has walked one block he is compelled to stop and rest. Three years ago he spat up probably about four tablespoonfuls of blood, fresh and frothy, and between that time and the present the sputa have occasionally been streaked with blood. His cough has not been very troublesome, but has occurred something as follows: some time during the day he feels the necessity for coughing, and commences; the cough soon becomes partly paroxysmal and continues until a small quantity of mucus is raised, whereupon it ceases and does not begin again until the same desire recurs. There has been no swelling of the feet, no nausea, and no diarrhœa. He looks in tolerably fair condition, and does not feel particularly sick, except for the shortness of breath.

This is the history of the case, and from such a history we would say that the shortness of breath probably depends upon some cardiac disease rather than disease of the lungs. There is nothing certain in such an assumption, but the probabilities are in its favor. If the difficulty is dependent upon lung disease instead of cardiac, there are two conditions which might give rise to such symptoms as we have here, namely, emphysema and phthisis. Either alone could give rise to such a history, and still more certainly the combination of the two, for the two may occur together. The question, however, can be settled only by physical examination.

As the chest is laid bare a distinct epigastric pulsation can be seen. The apex of the heart cannot be felt, and there is no abnormal cardiac murmur. There is no evidence of hypertrophy of the left ventricle. The dyspnœa, therefore, is not dependent upon cardiac disease. We will next examine with reference to pulmonary disease.

As I percuss this man's chest I get a kind of resonance which is often present with emphysema of the lungs. It resembles pulmonary resonance, except that the pitch is higher; it is not tympanitic at all; it is not particularly sonorous; it is really more like dulness, and yet it is not exactly dulness; a wooden tone, or a rather high-pitched pulmonary resonance is perhaps as good a description as can be given.

On auscultation the expiration is moderately prolonged over both lungs anteriorly. There are no râles over the upper part of the chest, but over both hypogastric regions a good many subcrepitant râles can be heard.

Posteriorly there is increased resonance upon both sides, and a few subcrepitant râles can be heard over the lower portion of both lungs. There is also prolonged expiration upon both sides of the chest.

The physical examination, then, gives no evidence of cardiac disease, and with reference to the lungs shows us in front a resonance rather higher pitched than normal; behind, exaggerated resonance, subcrepitant râles over the lower portion of the chest, and prolonged expiration over the entire chest. There is no marked dulness at any point.

The physical examination points to the existence of emphysema of the lungs. But you will observe that with the emphysema the spasmodic element is entirely absent. The man has emphysema and the dyspnœa dependent upon it, but he has none of the asthmatic attacks which so frequently accompany it. He has emphysema without asthma, if you keep the term asthma to designate the spasmodic form of affection.

The condition of the bronchi corresponds to this conclusion. There is apparently only a moderate amount of bronchitis in this case, while in most cases of emphysema there is considerable chronic bronchitis, and the bronchitis apparently plays a considerable part in the production of the dyspnœa from which that class of patients suffers. I should imagine that the absence of bronchitis in this case had much to do with the absence of spasmodic attacks of dyspnœa.

Although we do not get the sibilant, sonorous, and coarse râles which go with bronchitis and emphysema, on the other hand there is a physical sign present which points to a different complication of the emphysema. There are fine subcrepitant râles over the lower portion of the lungs, and such râles, without the coexistence of the coarse râles alluded to, indicate that the patient has, in addition to his emphysema, a certain amount of chronic interstitial pneumonia. That is, besides the dilatation of the air-cells which he has, there are nodules and points of fibrous tissue scattered through the lungs, or, as in the present case, confined to the lower part of the lungs.

These fibrous nodules and points seem to have no connection at all with phthisis; they seem to be a true interstitial pneumonia, simply a new growth of connective tissue between the air-vesicles occurring as a complication of emphysema. How much worse off the patients are who have this interstitial pneumonia, I do not know. It does not seem to add to their symptoms, for they have about the same amount of dyspnœa, whether they have interstitial pneumonia or not. At all events, in the severer cases of emphysema, especially with such physical signs as we have here, there is frequently evidence of such a new growth of connective tissue between the air-cells of the lungs.

Now, with reference to prognosis and treatment. As far as duration of life is concerned, prognosis is good; but with reference to the dyspnœa, it is unfavorable. His dyspnœa is likely to continue. The fact that it has been getting worse during the last four years is rather against him. Still he may improve to such an extent as to again be able to do a moderate amount of work; probably, however, he will never be able to perform very hard labor.

As regards treatment, we have in this case comparatively little to get hold of. In most cases of emphysema we really treat the bronchitis, for it is apt to be the complication which gives rise to many of the symptoms.

In this man there is but a very small amount of bronchitis. I should not, therefore, be disposed to give him any of the remedies ordinarily employed, but simply pay attention to his general health. Per-

haps he would receive some benefit from the use of cod-liver oil, iron, and quinine, continued steadily for some time. Iron and arsenic, perhaps, may be given in small doses with benefit.

The case is one of interest, because it differs from most of the cases of emphysema in that there is absence of bronchitis. There is a large amount of emphysema and great dyspnœa resulting from it, and yet there is present only a very slight amount of bronchial trouble.

EMPHYSEMA AND CHRONIC BRONCHITIS.

This man tells us that he has suffered from chest trouble during the last three or four years, and that it has gradually increased in severity until last December, when he was obliged to stop work. His chief complaint is, that he is short of breath all the time, and has cough, with considerable expectoration.

Occasionally the shortness of breath wakes him up, but as a rule he sleeps naturally in bed. He has not been obliged to get up but once on account of his dyspnœa. Three years ago he raised a small quantity of blood. His appetite is fair, and his general condition is very good.

Physical Examination.—There is no evidence of cardiac disease. Here again we have an example of that peculiar kind of resonance, already described, which is more characteristic of emphysema than tympanitic resonance. Upon auscultation, expiration is decidedly prolonged over the anterior portion of the chest, and the same is heard behind. The prolongation approaches a sibilant. There are no râles heard, except a few localized in the left suprascapular space. His voice gets hoarse at times, and his wife says that he breathes hoarse during sleep.

This case, then, seems to be an ordinary one of emphysema and chronic bronchitis, in which there is dyspnœa upon exertion, and also when the man is quiet. He has had as yet only one attack of spasmodic dyspnœa, but apparently it is gradually approaching that character. His cough and expectoration, and also his breathing, indicate trouble with the bronchi. At this particular time there are no râles, but probably at other times coarse râles can be heard. He has, however, a prolonged and sibilant breathing, which accompanies chronic bronchitis, and is quite as indicative of that disease as is the presence of râles.

The fine râles heard at the apex of the lung upon the left side, posteriorly, rather point to lung consolidation.

In this man we have a case to treat somewhat different from the preceding. It is a case in which it would be proper to administer the remedies commonly employed in the treatment of emphysema with bronchitis, such as the iodide of potassium, wine of ipecac, Hoffman's anodyne, etc.; but he has taken all these without benefit. He has also taken iron and quinine, and he is still getting worse, instead of better. He has also taken cod-liver oil, and yet his condition has not been improved.

There is a remedy which sometimes answers in these cases when iodide of potassium and all others have failed, and that is sulphuric acid. To be of service, it should be given in rather larger doses than those ordinarily administered. It will be ordered in this case in twenty-drop doses, aromatic sulphuric acid, four times a day. While the patient is taking this remedy all others will be discontinued except the oil, which may be continued with advantage.

In order to determine whether the acid is to give any benefit, it should be continued for at least three weeks. If, at the end of that time, the breathing is the same, you may be quite sure that the acid does no good, and it would then be proper to make a trial of some other remedy.

SUPPURATIVE INFLAMMATION OF THE STERNO-CLAVICULAR ARTICULATION IN THE COURSE OF ACUTE ARTICULAR RHEUMATISM.

This case possesses considerable interest from the fact that, although only this single small joint is affected, yet it may terminate fatally. The girl says that she had rheumatism last September, from which she had not fully recovered when this inflammation of the sterno-clavicular articulation upon the right side began to be developed. The joint is now exceedingly tender and is quite painful. A little farther down there is a localized soreness and pain connected with the periosteum of the sternum.

This kind of inflammation of the sterno-clavicular articulation, in the cases in which I have seen it, has been rather troublesome, altogether out of proportion to the size of the joint involved.

Whether accidental or not I am unable to say, but the cases have all gone on to suppuration. They began, as in this case, in connection with rheumatic inflammation, then changed into a suppurative inflammation, with distinct collection of pus about the joint.

There is apparently no pus here at present, and we have to deal with a simple rheumatic inflammation. The pain which has brought the girl here, and which is referred to the left side, is really the least important part of her case. That which requires special attention is the rheumatic condition showing itself in this joint. To subdue that I should place her at once upon considerable doses of colchicum and iodide of potassium. I should not stop to wait for the effect of salicin or salicylic acid in such a case as this.

Colchicum has its disadvantages, but it operates more rapidly in subduing such an inflammation as we have here than any drug we possess. I should first administer ten grains of the iodide of potassium, combined with ten drops of the wine of colchicum, three times a day. If the colchicum is borne well I should repeat the doses more frequently, gradually increasing the frequency to four, five, or six times a day, and should keep it up as long as the remedy does not disturb the stomach or bowels. The treatment should be prompt and decided. In two cases in which I have seen the suppurative inflammation of this joint in connection with rheumatism it has given rise to general pyæmia and death. One patient was a little girl who, from playing in the snow, developed acute articular rheumatism, which was attended by abscess of this joint and subsequent general pyæmia. As stated, the case terminated fatally. The second case had a similar history. It is well, therefore, for you to remember that, although this articulation is small, it may become involved by suppurative inflammation in the course of acute articular rheumatism, and give rise to very serious disturbance.

A Summer School of Biology, under the direction of the Peabody Academy of Science, will begin at Salem, on the 6th of July, and continue six weeks. Wednesdays will be devoted to dredging trips, the remainder of the week being occupied in the laboratory, lectures, and excursions; the special object being to give instruction to teachers in methods of teaching natural history. Special attention will be given to entomology and to the anatomy of vertebrates. The instruction will be under the immediate direction of Dr. A. S. Packard, Jr., assisted by Messrs. Emerton, Kingsley, Robinson, and Bolles.

Original Communications.

THE ENCEPHALIC CIRCULATION:

Its Mechanism and Relation to Various Cerebral Functions.

By REUBEN A. VANCE, M.D.,

GALLIPOLIS, OHIO,

(President of the Ohio Valley Medical Association.)

A paper, the substance of which was read before the First Section of the American Medical Association, June 2, 1874, and in its present form was brought before the Ohio Valley Medical Association, Nov. 8, 1876.

THERE are few questions in practical medicine which have given rise to more controversy, or been the subject of more conjecture, than that of the circulation within the cranial cavity. For a correct understanding of the intra-ocular changes which are observed to occur with the various forms of cerebral and spinal diseases, it is essential that the physiological processes whereby the brain is nourished in health, the variations which occur normally, and the phenomena presented by the circulatory system in disease, should be thoroughly comprehended. The intimate connection existing between the intra-cranial and intra-ocular circulations will render necessary a brief description of some anatomical points which will throw light upon certain physiological changes to which they are subject in common.

The main points at issue in regard to the mechanism of the encephalic circulation relate to the atmospheric pressure, the variability of the quantity of intra-cranial blood, and the power of the heart to exert a compressing influence upon the tissues of the brain by any influence that can be communicated through the carotid and vertebral arteries.

The bones of the cranial cavity form an unyielding case in which the nervous tissues of the encephalic centres, their membranous coverings and nutritive vessels, are packed with the utmost compactness and nicety. Intimately attached to their inner surface is the dura mater, which forms their internal periosteum, and is prolonged into the spinal canal, where it constitutes the external layer of the theca of the cord. The cranial nerves, as they emerge from the skull, are invested with a covering from the dura mater, the encephalic sinuses are situated in layers of its substance, while partition-like processes serve to separate and support different divisions of the brain.

The pia mater, the most internal of the membranes of the brain, and the one directly in contact with its surface, closely invests the cortical layers of the supreme centres, and is prolonged into the general ventricular cavity. It is the medium through which the nervous structures of the encephalon receive their nutritive supplies, and is situated between the brain and the arachnoid membrane. The arachnoid differs in no essential respect from the other serous membranes of the organism. Like the dura mater and pia mater, it is continuous with similar structures surrounding the spinal cord. It lines the internal surface of the dura mater in the cerebro-spinal cavity, and invests the pia mater, forming a closed sac, the highly polished surfaces of which are in immediate contact. It is never prolonged as a covering to the nerves which leave the brain or spinal cord, but at the point where they pierce the dura mater is reflected on the internal surface of that membrane. Its visceral layer does not penetrate the ventricles, neither does it dip into the sulci between the convolutions; it simply invests the external surface of the pia mater loosely, and at certain situations its arrangement enables the serum, with which the brain is abundantly supplied in health, to accumulate in considerable quantity.

The cerebro-spinal serum is found wherever the pia mater is situated, whether in contact with the brain or spinal cord, on the surfaces of both organs, and in the ventricles of the former. It fills the various inequalities of the cranial and spinal walls, but accumulates in greatest quantity where the subarachnoid space is most abundant. At the base of the brain two large reservoirs can be observed, one behind and below the cerebellum, corresponding to the posterior surface of the medulla oblongata, enclosed behind by the layer of arachnoid which passes from the medulla to the cerebellum, and one in front, extending from the anterior surface of the pons Varolii to the commissure of the optic nerves, occupying the central depression between the middle lobes of opposite sides, and bathing with its fluid the basilar and cerebral arteries, the chiasma, the tuber cinereum and infundibulum. Near the level of the corpus callosum, above the tubercula quadrigemina and behind the pineal gland, can be found a third receptacle, in which this extravascular serum accumulates in considerable quantity. The subarachnoid space of the spinal cord contains this liquid in abundance, and the anatomical structure of the parts is such that it can readily pass from the cranial to the spinal cavity, and *vice versa*.

The arterial supply of the brain is, in many respects, peculiar. The main arteries which penetrate the skull are provided with an anastomosis (the circle of Willis), which is very complete; the large branches which originate from it traverse the sulci of the convolutions before dividing into the network of vessels which, in great part, constitute the pia mater, and but few trunks of considerable size enter the cerebral substance. This extensive division and subdivision of the arterial vessels in the membrane which invests and lines the intra-cranial nerve-centres, undoubtedly operates to protect those delicate parts from the commotion incident to arterial pulsation, while the free anastomosis thus established prevents disturbance of the cerebral circulation from slight and transient causes. The extravascular serum which surrounds the larger vessels at their entrance, and accompanies the branches in their course, by the facility with which it is increased or diminished, would seem adapted to compensate for an increased or diminished amount of blood in the main vessels, without disturbing the equilibrium of the brain.

The researches of Robin and His have demonstrated another anatomical peculiarity which illustrates still more the conservative provisions with which the brain is endowed, and supplies the missing link which was necessary for a complete conception of the physiological actions of the encephalic structures. This is the discovery of a system of lymphatic sheaths, enclosing spaces around the blood-vessels, revealing a structural adaptation which seems especially calculated to permit of varying amounts of fulness of the cerebral vessels within certain limits, without injury to or compression of the surrounding nerve-pulp. "Professor His has succeeded in injecting this system of perivascular canals, and has found them most numerous in the gray matter of both brain and spinal cord. He has found the injections come to the surface of the encephalon and cord, and fill a vast system of lacunæ situated between the pia mater and the surface of the

nervous centres, whilst, if pushed still farther, he has found it fill the lymphatics of the pia mater itself. Thus there is, as it were, a second series of vessels enclosing and surrounding with a fluid medium all the ramifications of the cerebral and spinal vascular system, whilst these two sets of vessels, containing and contained, are lodged in definite cylindrical canals, permeating the nerve-substance in all directions. The lymphatic sheaths are in contact with, though easily separable from, the walls of the canals in which they are contained. The diameter of these canals, and therefore of the lymphatic sheaths, may be seen in transverse sections to be generally twice and sometimes three or four times as large as their contained blood-vessel. It will be easily understood that these two systems must have such a complemental relationship to one another that an extra state of fulness of one set of vessels must correspond with diminished fulness of the other set. That is to say, in order to make room for an increased amount of blood in the cerebral vascular system, a corresponding amount of fluid must be driven out of the enveloping lymphatic sheaths, whilst, when the vascular supply is again diminished, a proportionate amount of fluid re-enters the cerebral lymphatic canals." *

It occasionally happens that the physician has an opportunity of observing the phenomena presented in cases where a portion of the bony investments of the brain have been removed, either as a consequence of disease, or of surgical operation. It will then be apparent that, during the circulatory and respiratory movements of the heart and lungs, the brain undergoes marked and decided alterations of volume. Should the membranes be ruptured also, other phenomena will be apparent. The connection between these movements, which require such exceptional circumstances to render them apparent, and the changes which ensue in the brain when invested by its natural covering, is of such an interesting nature and so closely connected with many of the pathological states of that organ, that it is deserving of consideration.

When from any cause a portion of the cranial parietes has been removed, exposing the membranes of the brain, it can be observed with each contraction of the heart, and each respiratory movement, that the tension and prominence of these membranes will vary. The cardiac systole will be attended by an increased size, a visible enlargement and swelling of the exposed parts, which will approximate, or even pass, the osseous boundaries of the cavity through which they can be seen, and the sense of touch will show that this action is accompanied by a pulsatory movement of the same nature as that attending the dilatation of arteries in other parts of the body. With the diastole the membranes diminish in size and recede within the cranial walls. These appearances vary with the intensity and rapidity of the heart's action.

The respiratory movements are accompanied by phenomena not less apparent. With inspiration the volume of the brain, as exhibited by the parts under examination, will diminish, the membranes recede and become depressed. With expiration they expand, grow prominent, and pass beyond the boundaries of the skull. The movements synchronous with the cardiac systole and diastole may be observed during both inspiration and expiration, but are much more marked during the latter. When from accident, in addition to the loss of bone, there is perforation of the membranes, each expiratory act will be accompanied by protrusion of a portion of the cerebral substance, constituting *hernia cerebri*.

The phenomena attending sleep and wakefulness are not less marked. During the hours of active exercise and ordinary mental excitement, the situation of the membranes, as regards degree of approximation to the opening in the skull, will differ widely from their position during the repose of sleep. In the first condition, aside from the respiratory and cardiac movements, the membranes will be observed tense and distended; in the latter they will be lax and flaccid. In the one case they will be much nearer the opening in the parietes than in the other, their resistance to pressure and apparent vascularity will likewise present differences easily recognized. In brief, sleep will be attended by a diminished size and an anæmic state of the exposed membranes, while wakefulness will be accompanied by protrusion and hyperæmia of the same parts.

The various medical writers who have treated of the cerebral circulation can scarcely be said to have thrown much light upon the subject. The experiments of Monro, Kellie, and Burrows, the speculations of Abercrombie, and the teachings of Watson, Williams, Tod, and Bennett, while they clearly express the views warranted by the anatomical and physiological knowledge of the times in which they were formed, were radically defective in many important respects. The *à priori* conceptions they carried to their work are apparent in the results they attained, and it is only by the light of a more perfect anatomy and a more advanced physiology that we can, at the present day, arrive at results which, to say the least, contain fewer elements of error.

The different authors I have mentioned, with Reid, Copeland, Kirkes, Carpenter, and Arnott, whilst disagreeing more or less regarding the variability of the circulation within the cranium, its amenability to atmospheric pressure, the power of the heart to exert a compressing influence, and the importance of the cerebro-spinal fluid, are in harmony so far as regards the general admission of a state of intra-cranial fulness—a condition in which its fluid and solid structures accurately fill the cranial cavity. The question of an intra-cranial *plenum* is undoubted, but the variations in the relative quantity of the different fluids, with the circulatory and respiratory movements of the brain, its anæmic condition during sleep, and its vascular state during wakefulness, have not been set forth with the clearness and precision their physiological importance warrants, and need a few words in explanation.

In the normal condition the brain floats upon, is surrounded with, and permeated by the extra-vascular serum which accumulates at the base of the skull, permeates the pia mater wherever situated, and invests the vascular trunks contained in the lymphatic sheaths which penetrate its substance. This liquid communicates freely with the ventricles of the brain, and flows readily from the cranial to the spinal cavity. When the bony investments of the encephalon are intact, the contraction of the heart is attended by the propulsion of an increased amount of blood into the cranial cavity—an amount greater than can be compensated for by the quantity which is returned by the veins during the same interval of time—and, as a consequence, an amount of serum corresponding to the increased quantity of blood is forced from the cranial to the spinal cavity. With the cardiac diastole the tension of the arterial trunks is lessened, capillary attraction carries the new blood into the veins, and atmospheric pressure operates to draw back into the cranial cavity the serum just expelled. With each movement of the heart this interchange takes place—every systolic contraction is at-

* Bastian: *Reynolds's System of Medicine*. Art., "Congestion of the Brain."

tended by a flow of serum from the brain to the spinal cord, and the succeeding diastolic relaxation is attended by its return to the cranial cavity.

The mechanical forces in operation during respiration produce certain definite changes in the volume and appearance of the encephalic structures. The inspiratory act is accompanied by descent of the diaphragm and elevation and lateral expansion of the ribs, enlarging the cavity of the chest in all directions. One immediate effect of this general enlargement is to draw, as it were, the blood from the large venous trunks in the vicinity into the right ventricle of the heart, and this action is an important element among the forces which operate to maintain the general or systemic circulation. During the inspiratory act the blood is withdrawn from the cerebral sinuses, and this suction force may be so great as to cause collapse of the superficial veins of the neck. The phenomena of expiration due to the stagnation of the venous blood are equally marked and decided. The ascent of the diaphragm and subsidence of the chest-walls are accompanied by a temporary suspension of the flow of blood to the heart from the cerebral sinuses, while the uninterrupted activity of that organ continues to send an increased amount of blood into the brain. The consequence is, that while the normal quantity of blood is propelled into the intra-cranial cavity, comparatively little, if any, is discharged from it, and an unusual amount is lodged in its vascular system. As a result, the extravascular serum passes to and from the spinal cavity with each respiratory movement, flowing into the cranial cavity during inspiration, to supply the place of the blood drawn from the sinuses by the dilatation of the chest-walls, and returning during expiration as a consequence of the retardation of the venous flow which ensues from their contraction.

The movements which can be observed in the membranes and substance of the brain when the skull is perforated do not occur in its normal state. The alternate dilatation and contraction of that organ during the movements of respiration and circulation, which can be seen when a part of the cranial parietes have been removed, are not possible when the encephalic coverings are intact. The varying states of vascular fulness corresponding with these physiological movements are then compensated for by the flux and reflux of the extravascular serum in the manner indicated.

The conditions of sleep and wakefulness are accompanied by alterations in the tension and vascularity of the exposed membranes. In sleep they grow flaccid, and their blood-vessels diminish in number and size, whilst, during wakefulness, they are prominent and vascular in proportion to the state of mental or bodily activity. When the coverings of the brain are intact, the anæmic condition of the cerebral organs during sleep is accompanied by the presence of an additional quantity of serum around the vessels, in the meshes of the pia mater, and the ventricles of the brain; whilst, during wakefulness, the vascular trunks enlarge, and the serum is forced from the cranial to the spinal cavity.

The pulmonary and abdominal organs are invested by a serous membrane of the same nature as the arachnoid, and analogous offices are performed by these structures in common. The most prominent of these is the facilitation of motion by their polished surfaces. This can be seen in great perfection in the movements of respiration, whereby, through atmospheric pressure, the lung substance remains in contact with the chest-walls during inspiration, and during expiration in the return of the abdominal viscera to their proper positions. The unyielding bony structures external to the arachnoid, being motionless, do not act so as to cause the visceral layer to move in order to keep in contact with its parietal layer, as the surfaces of the pleura and peritoneum are forced to do, yet atmospheric pressure, which operates to keep the serous surfaces of those organs in apposition, and produces many of the visible phenomena of respiration, preserves the character of the arachnoid as a closed sac, keeps its surfaces in contact, and maintains the fluid contents of the skull at a uniform quantity. For the due performance of the physiological movements of the brain, the arachnoid sac, and extravascular serum are as important as the cavities of the pleuræ, the contractile muscles, and the inspired and expired air are to the movements of the chest during respiration.

Cases of disease exemplify what it is reasonable to infer from the anatomical structure and physiological peculiarities of the intra-cranial organs in relation to the ability of the heart, under certain circumstances, to exert a compressing influence upon the encephalic substance. It is necessary, however, that all the serum should first be expelled from the perivascular sheaths, and in great measure from the meshes of the pia mater, before the cardiac impulses can affect the nervous tissues, and, as a general rule, this is only possible in those cases where, from the continued distention due to prolonged functional activity, the muscular coats of the vessels have lost their contractility.

In conclusion, the peculiarities of the cerebral circulation, including the various disputed points, can be summarized as follows:

First. Atmospheric pressure operates in such manner as to keep the fluid contents of the skull at all times the same;

Second. The heart can, under certain circumstances, exert a compressing influence upon the encephalic structures; and

Third. The relative quantities of arterial and venous blood and extravascular serum vary with,

1. Cardiac contractions;
2. Respiratory movements;
3. Sleep and wakefulness; and,
4. Mental excitement and repose.

TRACHEOTOMY IN DIPHTHERIA—FOUR SUCCESSFUL CASES.

[During the past few months we have received the following cases, and thinking it desirable to place them upon record, we group them for convenience under one heading:]

By A. Rose, M.D.,

NEW YORK.

Case I.—In the evening, on November 2, 1875, I saw for the first time Mr. L.'s child, a boy aged three years. I ascertained that he had been in perfect health on the evening of the 1st November, having eaten the supper with a good appetite; that he, however, awoke with symptoms of dyspnœa on the following morning, and grew rapidly worse. I found great difficulty of breathing, with energetic contraction of the muscles of the anterior thoracic wall, each inspiration causing a deep groove, corresponding with the place of insertion of the diaphragmatic muscle at the lower end of the sternum; at the same time there was a stridulous noise, the lips were of a blue color, and on the fauces there was diphtheritic exudation. Having obtained the consent of the parents, I performed tracheotomy immediately, with the kind assistance of Dr. B. Scharlau. The child was quite insensible to pain, and no anæsthetic was necessary.

While cutting down to the trachea, close under the isthmus of the thyroid gland, I found a well-developed network of veins, some of which I was forced to sever. Considerable bleeding took place, but by the application of 6–8 ligatures I succeeded in arresting all hemorrhage before I opened the trachea. After the incision was made and the canula inserted respiration became immediately easy and normal. The child soon took liquid food, and seemed to improve during the night. During the next forenoon, however, symptoms of paralysis returned. Quinine, camphor, and benzoic acid were administered internally, but death ensued eighteen hours after the operation.

Case II.—On November 13th I performed tracheotomy, with the kind assistance of Dr. H. von Seyfried, on a little girl, three years old, the daughter of Mr. R. I had seen her for the first time on the 7th of November, when I already had observed difficult respiration. Although no diphtheritic deposit could be found, I had reason to presume an attack of diphtheria, and prescribed accordingly. I did not see the child from the 8th to the 12th of November, but was informed that the dyspnœa continued, with intervals, during the entire period, and finally it increased so much as to necessitate an operation. The same characteristic symptoms of difficult respiration were observed as in the first case. Chloroform was administered. On account of the presence of a middle lobe of the thyroid gland, and for other anatomical reasons, I was compelled to cut through the gland along the median line, which being done, I soon succeeded in laying open the trachea; there was also considerable hemorrhage, but it ceased as soon as the tube was inserted

The respiration of the child was at first irregular, but it soon improved after large diphtheritic membranes were coughed up. Towards evening it whispered a few words, which were understood by the mother.

November 14th. — Temperature 103, pulse 160. Membranes continue to be coughed up. Dulness of small extent on percussiôn and diminished respiration posteriorly and below on the left side. Five grains of quinine every two hours.

November 15th.—Temperature and pulse about the same; membranes expelled. Two doses of quinine, of ten grains each.

November 16th.—Temperature 101, pulse 130. Dulness on percussion has disappeared, moist râles on the right side above. No more membranes, but only catarrhal secretion instead.

The child now improved rapidly. On the 17th she took her food together with the other children, and was able to speak plainly whenever the tube was closed. A moist sponge was attached to the external opening of the canula. In order to prevent the drying of the tracheal and bronchial secretion, and the consequent clogging of the tube, I employed Dr. A. Jacobi's method of lubricating the inner tube with glycerine whenever it was taken out for the purpose of cleaning. The proliferous granulations of the wound were cauterized with a strong solution of nitrate of silver.

There are seven children in the family, ranging from one to twelve years. They live on the first floor of a rear tenement house; the room in which I operated serves as a living, sleeping, cooking, and eating room; the door opens immediately into the yard. The small supply of light embarrassed me greatly during the operation; yet, in spite of all these drawbacks, the little patient has steadily improved. At the time of reporting the case she still wears the outer tube, which, during the day, is closed by a piece of cork.

226 Seventh Street.

By Geo. A. Haqunga, M.D.,

NEW YORK.

Case III.—Sarah Ellen C., aged five years and three months; subject to tonsillitis (otherwise healthy); had a portion of both tonsils excised about fourteen months ago for "hypertrophy of the tonsils;" since then had no throat trouble until the 6th day of March, when I found her suffering from an attack of diphtheria.

This yielded in about six days to the usual remedies of chl. potass., iron, salicylic acid, and quinine; as the throat cleared a croupy cough appeared, with considerable dyspnœa. Attempted to combat these grave symptoms by means of a high temperature loaded with vapor, large doses tr. mur. iron, and direct inhalation of salicylic acid spray (gr. xx. to ʒ i.) from an atomizer.

Gave also an expectorant mixture of syr. acet. sang. can. combined with syr. pruni. virg. every hour, with little or no apparent benefit. As the dyspnœa grew hourly worse I had recourse to five gr. doses of Turpeth mineral, which produced prompt emesis, with temporary relief.

This treatment was continued, according to the exigencies of the case, from the 12th to the 15th, when, owing to her exhausted and partially asphyxiated condition, I relinquished all hope of benefit from medication, and resorted to tracheotomy. Assisted by Drs. Logue and McGuirk (Dr. L. having chloroformed the patient) I proceeded to open the trachea below the isthmus of the thyroid gland, with the happiest result.

All the loose diphtheritic matter was expelled immediately through the opening, and she breathed freely once more and partook of brandy, beef-tea, etc., kindly, though the stomach did not retain it.

A sinapism to the epigastrium checked the vomiting in a measure, and I then ordered the usual quinine powders to be administered every three hours, and an expectorant mixture of mur. ammonia, wild cherry and paregoric to allay the bronchial cough; also warm flaxseed meal poultices to be applied over the entire chest continually. All went well until 2 A.M. of the 19th, when she became thoroughly prostrated from cough, and efforts to expel an accumulated deposit which obstructed the tube.

With the assistance of a pigeon's feather and a forceps the obstruction was removed and a free administration of brandy caused a rally to her usual status.

From this time onward there were no untoward symptoms and her recovery was gradual and sure.

On the 4th day of April—three weeks less a day from the time of opening the trachea—she having recovered her voice, and respiration being normal, I removed the tube permanently. The opening, after removal of the tube, closed in about six hours.

500 Canal Street, N. Y.

By G. O. Morrison-Fiset, M.D.,

EXAMININO PHYSICIAN, DEPARTMENT OF THE OUT-DOOR POOR, BELLEVUE HOSPITAL, NEW YORK.

Case IV.—On December 26, 1875, at noon, I was called to a boy aged six years and four months. He had been taken sick six days before, first complaining of feeling chilly, and two days later of sore throat, with loss of appetite and sleep. When I saw the patient there was some difficulty of respiration present, accompanied by loud tracheal râles; the countenance was flushed and anxious; the tongue coated, and the pulse quick and full. An irregular white exudative patch was seen covering almost the entire surface of the left tonsil, and extended downwards. I accordingly diagnosed diphtheria. The lymphatic glands about the

lower jaw were not enlarged. Very little food had been taken by the patient for forty-eight hours, and vomiting had occurred frequently. The bowels were constipated, and there was retention of urine. Quinia was prescribed in five-grain doses, to be given every four hours, and the application to the diphtheritic patch, with a feather, of a solution of bromine (1 part to 40) of ʒi. to ℥i. of water every morning and evening. A milk diet was ordered. Hot fomentations were ordered to be applied to the hypogastrium. At midnight I was again summoned to the patient. The dyspnœa was now extreme; the countenance was greatly flushed, and the patient would roll in his bed from side to side, apparently in great distress. I administered eight grains of sulphate of zinc, which produced slight emesis and expectoration of mucus, but with little or no amelioration of the urgent symptoms present. The respiration was fast becoming more labored, and the pulse was getting feeble and more rapid. Dr. J. J. Reid was called in consultation, and tracheotomy was decided upon as the only chance left of saving the life of the patient. After obtaining the consent of the child's parents, chloroform was administered by Dr. Reid, and the operation of tracheotomy was performed by myself in the usual manner. After the introduction of the canula into the trachea the patient coughed a few times, expelling blood and mucus. Matters were brought to a crisis by the stoppage of all respiratory acts, and a few seconds later of cardiac pulsation. Artificial respiration was immediately resorted to and pushed on vigorously for at least twenty minutes. During this period the child would occasionally inspire, and the pulse could scarcely be felt at the wrist. The respiration and cardiac pulsation gradually became re-established, and we were rewarded at last, after twenty minutes of hard work, in keeping up artificial respiration. Stimulants and milk were freely administered, and the patient sank into a sound sleep which lasted for several hours. The same treatment was continued. The patient was seen five hours after the operation by myself, and was then sleeping. He was again seen at noon by Dr. Reid, and by myself in the evening. The patient's father was instructed to remove the inner canula frequently for cleansing purposes, which he carried out faithfully during the whole period that the tube remained *in situ*. Bronchitis developed after the operation, but was of a mild character and gave no trouble. The exudation seemed not to have extended below the larynx, as no exudative membrane was expelled at any time through the tube. The child made an excellent recovery, and the canula was removed on the twelfth day after the operation.

The points of interest connected with this case are: (1), the great advantage of the operation of tracheotomy in diphtheritic croup; (2), that the operation, to be useful, should not be postponed until the patient is cyanotic and pulseless; and (3) it shows the great necessity of performing artificial respiration, and persevering in it, though the case may be apparently a hopeless one.

The subject of the value of tracheotomy as a means of relief in diphtheritic croup has largely engaged the attention of the profession, and in this city, not many months ago, the subject was under discussion at a meeting of the Academy of Medicine. Many have questioned its value in this disease, but statistics are fast accumulating in favor of the operation. In reporting this case my view has been to add another successful one to the statistics bearing upon this important subject.

880 Lexington Avenue.

Progress of Medical Science.

Condition of the Urine in Atrophic Children.—MM. Parrot and Robin state that in the disease called arthrepsy of infants by the French, in other words atrophy dependent upon dyspepsia, they have constantly found a peculiar condition of the urine, which is only found in connection with other diseases when the latter are complicated with arthrepsy. In doubtful cases the diagnosis may be settled by this condition of the urine. It is always colored, varying from a pale lemon color to the deepest yellow; its smell is stale, nauseous, aromatic, and more or less strongly urinous; the quantity is always diminished, in the chronic form being often as low as 8-10 c.c., in the acute 5 c.c.; the specific gravity varies from 1009-1012.5. It is always cloudy and milky, except at the termination of very chronic cases, and at the setting-in of convalescence. The sediment which is almost always present contains different forms of casts, fatty elements with colored nuclei, uric acid, urates in crystals and powder, pigment, etc. The reaction is always acid, often exceedingly so. The quantity of urea is greatly increased; on an average it is 8.49 gr. per litre. The uric acid, coloring and extractive matters are also increased. Albumen is always present, though in variable quantities; sugar is also frequently present. The average quantity of the chlorides is from 3.9 to 3.28 gr., of the phosphates from 2.24 to 0.95 gr.—*Allg. Med. Central-Zeitung*, January 31, 1877.

A Cyst of the Ovary that Ruptured into the Peritoneum during Labor.—On the evening of November 26, 1876, a woman was brought to the *hôpital Cochin* in Paris, who had been in labor for three days. She was twenty-seven years of age, and was about eight and a half months pregnant. The bag of waters had broken three days before, and three attempts had been made to perform version before she had been sent to the hospital. No ergot had been given, according to all accounts. The early history of the case could not be obtained. On her admission to the hospital the left shoulder was found presenting in the second position, and two attempts were made to perform version, but the uterus was so firmly contracted that it was impossible to reach the feet or even the breech. Embryotomy was then performed by M. Polaillon. Before the operation the general condition was bad, the facies altered, the pulse rapid, and the abdomen excessively sensitive. On the morning of the 27th, the temperature was 98⅕°, the pulse small and rapid, the abdomen tympanitic, and there was bilious vomiting. The patient died at midnight.

Autopsy.—Stomach and intestines greatly distended with gas. Visceral and parietal peritoneum injected, red, but not covered with recent false membranes. The peritoneal cavity contained about 1½ litre of an opaque, sanguinolent fluid, in which the microscope revealed numerous pus globules and drops of fat. Kidneys, liver, lungs, and heart normal.

Uterus.—Cavity perfectly healthy. Its posterior face was covered with firm false membranes, connecting it with a tumor that filled Douglas's cul-de-sac. This tumor consisted of an empty sac, which contained only a blood-clot, and was almost large enough to contain the fist. Its walls were from ⅕ to $\frac{3}{10}$ inches in thickness, the internal surface being mammillated. At its lower part, on the right side, there was a small perforation, through which a sound could be passed into the recto-uterine cul-de-sac. The tumor was connected with the uterus by the round ligament. Small

cysts as large as a hemp-seed, and containing a reddish fluid, were found in the thickness of its walls. The microscopical examination of the walls of the cyst showed that they were composed of an outer fibrous layer, and of an inner layer of embryonic tissue presenting all the characters of the tissue of the very vascular sarcomas, and MM. Chambard, Malassez, and de Sinety believed it to be sarcomatous in nature.—*Le Progrès Médical*, 17 Fevrier, 1877.

Indications for Trephining drawn from the Cerebral Localizations.—At the meeting of the *Académie de Médecine* on January 9th. M. Lucas-Championnière read a paper on this subject. His attention had first been directed to it by a case in which he had successfully performed the operation of trepanning in 1874. The patient, after receiving an injury of the head, suffered from paralysis of a part of the muscles of the right arm and from aphasia. There was no wound, and the trephine had to be applied almost at hap-hazard; but still the operation succeeded perfectly. A fragment of the inner table was extracted with difficulty from the dura mater; the symptoms then gradually disappeared, and the patient recovered completely. M. Lucas-Championnière called attention to the fact that all the motor centres are grouped around the groove of Rolando; hence, when the position of the groove of Rolando is known, the situation of these centres will also be known. The summit of the groove is situated in men, on an average, 53 millimetres, and in women 48 millimetres behind the bregma. To find the bregma it is only necessary to remember that it is situated on the summit of a plane that passes through both auditory canals, when the head is held horizontally. A horizontal line seventy millimetres in length is then measured backwards from the external orbital apophysis, and from its extremity a perpendicular line thirty millimetres in height is raised. If now a line be drawn on the skin between the two points thus determined, we will have the *ligne Rolandique*, which will correspond with the groove of Rolando. Every time that M. Lucas-Championnière trepanned experimentally on this line, he came upon the groove of Rolando. It is necessary to apply the trephine about the middle of this line, when the symptoms are complicated; towards the summit if the lower limb be paralyzed, and rather towards its lower end when the upper limb is affected.—*Gazette des Hôpitaux*, 11 Janvier, 1877.

Fissure of the Anus in Infants.—Dr. Mabboux reports the case of a child of two months old, who for three weeks had suffered from constipation, with indications of great pain on passing the very hard motions. A fissure, with great contraction of the anus, was found on examination. Attention to the bowels and a salve of extract of rhatany effected a cure in six days.—*L'Union*, 1876.

Peculiar Alteration of the Nervous Centres.—In a case of epithelioma with cylindrical cells starting from the ependyma of the fourth ventricle; in another case of solitary tubercle of the cerebellum and corpora quadrigemina; in a third case of solitary tubercle of the cavity of the fourth ventricle; and, finally, in a case of extensive sarcoma, situated above the corpus callosum, the substance of which was buried in equal proportions in the two hemispheres, and in another case of spina bifida, Dr. Vincenzo Brigidi (*L'Imparziale di Firenze*) has met with a peculiar alteration, consisting of numerous small round cavities excavated in the medullary substance, and filled with a dense, white, transparent substance, which does not give the reaction of amylaceous or colloid matter, or mucin. The alteration is also distinguished by numerous characteristics from the vitreous degenerations of the French authors.

Dr. B. is inclined to regard this substance as liquefied myeline, which has collected between the nerve-fibres, in consequence of the rupture of the membrana limitans, and which later solidifies. He is not certain, however, that this is the true explanation of this hitherto undescribed appearance, and Ranvier, who has also examined the preparations, is likewise unable to offer a satisfactory explanation.—*Lo Sperimentale*, Feb., 1877.

Brown-Séquard on Localization in Brain Disease.—In a discourse delivered recently in London Dr. Brown-Séquard analyzed and criticised the various views held by Broca, Sanders, Meynert, Fritsch, Hitzig, and others, as to the centre of disease in aphasia, and concluded that lesion of any part of the brain may produce this trouble. He therefore rejected the present theories by which aphasia is located in the third frontal convolution or in the island of Reil, and instanced a number of cases in which these so-called organs have been destroyed without affecting the speech, and others in which disease of the posterior lobe was the only apparent lesion discovered after death. He added, further, that great masses of the brain on either side might be destroyed without any marked alteration either in sensibility, in power of sight, or speech. His personal view is, that each function of the brain is carried on by special organs, but that these organs, instead of being composed of cells forming a cluster or mass in one part, are composed of scattered cells diffused in many parts of the brain, in communication, of course, one with the other by fibres, and forming a whole by this union of fibres, but still so diffused that a great many parts of the brain "contain the elements endowed with each of the various functions that we know to exist in the brain."—*Dublin Journal of Medical Science*, March, 1877.

Curability of Acute Phthisis (Galloping Consumption).—Dr. McCall Anderson, of Glasgow, in a recent clinical lecture, gave the histories of three cases of acute phthisis which terminated in recovery while under his care. All the cases followed exposure to cold and wet, and were characterized by a rapid course, with slight chills, high fever that rapidly assumed a typhoid type, rapid pulse and respiration, dry, coated tongue, costiveness, thirst, nausea, poor appetite, great weakness, with very rapid emaciation, frequent but not severe cough, mucous or rusty expectoration, delirium or stupidity and drowsiness, and profuse perspirations. The physical signs were slight dulness at the apices of the lungs, with abundant moist râles, and also dry râles over both lungs. The abdomen was not tympanitic, and there was no gurgling or iliac tenderness. The treatment consisted in iced cloths to the abdomen for half an hour every two hours, and in the internal administration of quinine gr. i., digitalis gr. i., and opium gr. ss., q. 4 h., with the view of reducing the fever; these remedies were used either alone or conjointly. The profuse sweats were checked by hypodermic injections of atropine gr. $\frac{1}{100}$, at night; in one of the cases the dose had to be increased to gr. $\frac{1}{80}$. The bowels were kept open by enemata or by oil. In order to keep up the strength of the patients, milk and soups, with brandy or champagne, were administered in small quantities at frequent intervals. In one case carbonate of ammonia was given.—*The Lancet*, March 24th and 31st.

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MISTAKES IN PRESCRIBING.

The particulars of a case of accidental poisoning by corrosive sublimate have lately come to light, and may serve as a text for a passing comment on the much talked of relations between physicians and druggists, and the necessity of a proper understanding of mutual responsibilities. It appears that a physician wrote a prescription, of which the following is a copy:

"R. Hydrargyr. chloridi.....gr. vi.
Pulv. opii.....gr. i.
Put together in one paper."

The patient for whom it was intended presented it o a druggist, who gave her six grains of corrosive ublimate and one grain of opium. She took the edicine internally, in accordance with the direcions of her physician, and it was only by the utmost romptness in the administration of any antidote that er life was saved. It appears to us that the blame or this accident rests equally between the physician .d the compounder. The former maintains that he rdered calomel. He is certainly mistaken in this. .s far as the name of the article goes, it was neither alomel nor corrosive sublimate, but an abbreviation f each, which gave an opportunity for much guessing. oth calomel and corrosive sublimate are chlorides of ercury, but the former is known and written as the ild chloride (*hydrargyri chloridum mite*) and the latr as the corrosive chloride (*hydrargyri chloridum rrosivum*). At best, the prescription was very careisly written. Still this fact should not exonerate e dispenser from all blame. Knowing that he was aling with a deadly poison, he should have made re that the drug was not to be used internally before allowed it to go out of his hands. If he presumed t the prescriber meant corrosive sublimate he should least have written upon the paper "for external e." But it was such a small matter to inquire from t patient in a proper way as to how the medicine was to be used that there is no excuse on the part of the clerk for not doing so. In the absence of any directions for the use of poisons, this rule should be absolute. The greater the liability for mistaking one drug for the other on account of similarity of name and appearance, the greater should be the precautions taken. This remark applies with peculiar force to calomel and corrosive sublimate. In writing for either there should never be any room for doubt as to the precise article indicated; that such doubt was created in this case shows negligence on the part of the prescriber. This want of forethought is the more apparent when we consider that there are terms to designate calomel which are universally recognized as distinctive. Even should there be an objection to the use of *calomelas*, the old-fashioned *hydrargyri submurias*, or the more recent term *hydrargyri subchloridum*, would never be questioned. On the other hand, the names *hydrargyri bichloridum*, or *hydrargyri chloridum corrosivum* would be equally explicit.

THE DISTRIBUTION OF CASES FOR HOSPITALS.

The distribution of hospitals throughout the city is perhaps everything that could be desired. Each of the large charities is situated far enough from the other to allow the city to be divided into hospital districts. This is perhaps a more fortunate circumstance than would at first appear. To those who may be the subjects of accident in different parts of this large city, the benefits arising from a reasonable proximity to a hospital are hardly to be calculated. In view of the fact that the longer the distance which a patient suffering from a severe accident has to be carried the less are his chances of recovery, no single hospital can possibly hope to monopolize such cases. It seems almost absurd, for the sake of sending sufferers to a particular hospital, that, *en route* thereto, one, if not two institutions which are willing to care for them, should be passed. And yet this is repeatedly done, not unfrequently at much risk to the patient and much positive and preventable suffering. It seems to us that the time has now come to make some new arrangements for cases of accident. We are informed that the police authorities are ready to take some action in the matter, provided the hospital authorities are willing to co-operate. Recognizing the difficulties and dangers of long transportation, they are anxious to entertain the proposition of dividing the city into suitable districts, provided the larger hospitals in such districts shall be willing to provide their own ambulances and have the same subject to call. This is certainly a proposition which deserves careful consideration and commends itself to all who are interested in the care of those who suffer from accidents, or who are suddenly stricken with disease. The police department is the proper one to take the matter in hand, and it is to be hoped that any efforts

which may be made in the direction of a proper distribution of cases will be promptly seconded by our hospital managers.

ENDOWMENT OF MEDICAL COLLEGES.

A RECENT number of the RECORD contained a letter signed ALUMNUS, who made some pertinent inquiries as to a proposed *fund* which the Alumni of the College of Physicians and Surgeons of this city are endeavoring to raise, with the object of promoting superior medical education. The author of the article alludes to the fact that a sum of $250,000 is sought for, and asks very properly, "Who is to have the custody of this fund and its special application?" He also says that "it does not give the information whether a special professorship is to be endowed, or all the present ones aided." He thinks, moreover, that it indicates "some concealed purpose," and desires to be enlightened on these matters. In answer to his inquiry, and for the benefit of those of the graduates who are interested in the work of the Association, it is proper to explain its present attitude by a reference to what it has done in the past. Incorporated on the 12th of May, 1873, it issued the same spring a circular endorsing the report of its Executive Committee, who recommended "the raising of a sum of money, not less than $100,000 in amount, to be devoted to the following distinctive purposes: The endowment of a Chair of Pathological Anatomy, to be called *the Alumni Professorship of Pathological Anatomy*; the establishment of separate laboratories, where students may learn chemistry, physiology, and pathological anatomy experimentally, and where original researches may be carried on under the guidance of competent instructors; and the erection of one or two small recitation or lecture rooms, each capable of seating about thirty persons."

A good deal of energy was spent by different members of the Association in securing money and subscriptions, chiefly among the medical profession, and the fund thus started has slowly but gradually increased, until now it has reached a very respectable amount, though still very far from the sum first contemplated. During the present year it was thought advisable to issue another circular. A report was made which the Councillors and the Association adopted at their annual meeting, and to which the Trustees affixed their names. Though the amount now asked for is greater by $150,000 than the original sum designated, it does not appear from the new circular that there is any necessary conflict between the two statements as to the purposes for which the money is to be used. The Alumni Association, it is to be understood, are not in a position to dictate as to what the disposal of the fund shall be, as is evidenced by the wording of their certificate of incorporation, which reads "that the objects for which the said corporation is formed are: the collection of funds by contribution and subscription, and the holding, investment, and application of the same for the establishment and endowment of professorships and fellowships, the creation of prize funds, the establishment and equipment of laboratories, the erection and equipment of suitable buildings for the same, or the alteration and repair of buildings already erected, and for the purpose of buying, holding, and hiring or leasing property for any and such other purposes of medical and scientific investigation and instruction, in connection and co-operation with the Trustees of the 'College of Physicians and Surgeons in the city of New York,' as the said 'Association of the Alumni' of said college, in pursuance of its Constitution and By-laws, may direct." It may, therefore, be seen that whatever is done by the Alumni Association must be *in connection and co-operation* with the Trustees of the College of Physicians and Surgeons, a mutual relationship which is eminently proper for the two bodies to hold to one another.

Probably there is some diversity of opinion as to the way in which a fund of this kind should be expended, but there is no question that the leaning of the Association or its Councillors has been towards more thorough and extended instruction in Pathological Anatomy, and the foundation of a chair in this branch was earnestly hoped for. This fact is emphasized by the Secretary of the Association in his recent reply to Alumnus. The fund for this purpose has been known as the "Pathological" or "Laboratory" fund, and amounts to something over $15,000. The exact method of employing it has been earnestly discussed though without reaching any definite conclusion; any action contemplated by the Alumni Association must, it is to be remembered, be done *in connection and co-operation* with the Trustees of the College of Physicians and Surgeons, whose consent is therefore to be obtained. At the same time the Association has a right to, and would doubtless require, guaranties for the proper use of its money. At a recent meeting a resolution was passed by which a committee was to be appointed to confer with the Faculty of the College of Physicians and Surgeons, with a view of reaching some understanding, that prospective action might be intelligent and in unison. There is no doubt that the present state of uncertainty which exists as to the employment of the fund greatly embarrasses the work of the Association, and has prevented many of those who have the welfare of the college most at heart from giving it aid. We therefore await the report of the committee with some interest, and anxiously hope that the friends of the college may be informed at the earliest practicable moment of the plans which these two bodies jointly recommend. Decisive action is required now, that the enterprise in which the Alumni Association has embarked may not fail through lack of definiteness in its stated purpose.

MARINE HOSPITAL SERVICE.

SINCE 1873 the Marine Hospital Service has required candidates to pass a good practical examination as to professional qualifications, and the good results of

ained show the importance of the change. Formerly no examination was deemed necessary, and the result was that, although there were good men in the service, still persons without proper qualifications or professional skill were constantly creeping in, much to the detriment of the service. The last report contains many interesting articles, among which those on yellow fever, malarial fever, and syphilis, deserve special notice. The maps and tables are elaborate, and evince a patient and conscientious study of the subjects.

Reviews and Notices of Books.

Transactions of the American Gynecological Society, Vol. I., for the year 1876. Boston: H. O. Houghton & Co. 1877. 8vo, pp. 396.

In June last a number of gynecologists from various parts of the United States, in answer to a call issued during the previous month, assembled at the Academy of Medicine, and founded the American Gynecological Society. On the following September, and in this city, the first meeting of this Association was held, a detailed account of which forms the contents of the volume before us. With a membership thoroughly representative, and with an interest thoroughly cosmopolitan, its success was almost a foregone conclusion. Our readers have been presented already with an abstract of the proceedings of the first meeting, and will agree with us in a high estimate of their worth to practical gynecology. In the present volume all the papers which were read during the session are published in detail. As contributions to advanced gynecology they exceed in value anything which we have ever before seen collected in any one volume. Without exception, every paper has an interest and value attached to it which is intrinsic and which reflects the best efforts of the respective authors. Each seemed actuated by a single purpose, and each has succeeded in the effort to widen the sphere of observation in one of the most important departments of the healing art. The number and variety of the papers read quite forbids the possibility of a critical review of them in the space which is allotted to us, but we can give some idea of the scope of the volume by reference to them by title. The first score of pages is occupied by the history of the inauguration of the Society, its constitution and by-laws, list of officers and minutes of the first annual meeting in abstract. Then follows the annual address of the President, Dr. Fordyce Barker, which is full of valuable suggestions in regard to the management of discussions, and to all other matters pertaining to the success of scientific meetings. We wish it could be placed in the hands of every president of a medical society in the country, for we are convinced that a heed of its precepts would culminate in the "expression of careful study, deliberate judgment, and mature experience." But this is merely *en passant*. The following are the papers in the order of their appearance in the volume:

I. Etiology of Uterine Flexures, with the proper mode of treatment indicated. By Thomas Addis Emmet, New York.

II. Cicatrices of the Cervix Uteri and Vagina. By Alexander J. C. Skene, M.D., New York.

III. Extirpation of the Functionally Active Ovaries for the Remedy of Otherwise Incurable Diseases. By Robert Battey, Rome, Ga.

IV. Viburnum Prunifolium (Black Haw); its uses in the treatment of women. By Edward W. Jenks, M.D., Detroit, Mich.

V. An Illustration of Xenomenia. By Theophilus Parvin, M.D., Indianapolis, Indiana.

VI. Relations of General Pregnancy to General Pathology. By Robert Barnes, M.D., London, Eng.

VII. The Spontaneous and Artificial Destruction and Expulsion of Fibrous Tumors of the Uterus. By W. H. Byford, Chicago, Ill.

VIII. Case of Abdominal Pregnancy Treated by Laparotomy. By T. Gaillard Thomas, M.D., New York.

IX. Pneumatic Self-Replacement in Dislocations of the Gravid and Non-Gravid Uterus. By Henry F. Campbell, M.D., Augusta, Ga.

X. Hydrate of Chloral in Obstetrical Practice. By W. L. Richardson, M.D., Boston, Mass.

XI. Labor Complicated with Uterine Fibroids and Placenta Prævia. By James R. Chadwick, M.D., Boston, Mass.

XII. Latent Gonorrhœa, with Regard to its Influence on Fertility in Women. By Emil Noeggerath, M.D., New York.

XIII. Death from Urinemia in Certain Cases of Malignant Disease of the Uterus. By Alfred Wiltshire, M.D., London, England.

XIV. Clinical Memoir on Some of the Genital Lesions of Childbirth. By William Goodell, M.D., Philadelphia, Pa.

XV. Hermaphroditism. By Lawson Tait, F.R.C.S., Birmingham, England.

XVI. Cases of Cystic Tumors of the Abdomen and Pelvis. By Geo. H. Bixby, M.D., Boston, Mass.

XVI. Case of Solid Uterus Bipartitus; both ovaries removed for the relief of epileptic seizures ascribed to ovarian irritation. By E. Randolph Peaslee, M.D., New York.

XVII. The Origin and History of Calculi Found in the Bladder after the Cure of Vesico-Vaginal Fistula by Operation. By Henry F. Campbell, Augusta, Ga.

XVIII. Rare Forms of Umbilical Hernia in Fœtus. By James R. Chadwick, M.D., Boston, Mass.

XIX. In Memoriam Gustav Simon. By Paul F. Mundé, M.D., New York.

The work is elegantly printed, neatly and tastefully bound.

Blaps Mortisagra as a Human Parasite.—The larva of this insect, known as the churchyard beetle, was found in the motions of a child eleven years of age, by Mr. Horne, and sent to Dr. T. Spencer Cobbold. The child had been brought up on boiled cow's milk, but before the discovery of the insect it had suffered from diarrhœa, for which hydrarg. c. cretâ and rhubarb were prescribed, which appear, according to Dr. C., to have acted anthelmintically. The evidence is not regarded as particularly strong in itself, but in accordance with what has previously been published, as, for example, in the case of Mary Riordan, who passed upwards of 1,200 larvæ, and several perfect insects of this species. Pickells, and Thompson, and Patterson, and Bateman have published other similar cases. It is not known how the maggot entered the child in this instance, though with Mary Riordan it was comparatively easy to explain the matter. She was in the daily habit of drinking water mixed with clay taken from the graves of two Catholic priests, and eating large pieces of chalk.

Some absurd or superstitious notions are usually at the bottom of the whole matter. The insect is very intolerant of the light, and loves to bury itself in the ground.

Correspondence.

A METHOD OF MEASURING THE LOWER EXTREMITIES.

To the Editor of The Medical Record.

Sir—By the ordinary method of obtaining the comparative length of the lower extremities, it is difficult to get exact results. Even when every precaution is taken to guard against the obliquity of the pelvis (which is the chief source of error), an eighth or even a quarter of an inch difference may escape detection. Such at least is the case when measurement is made between the spinous process of the ilium and the malleolus on each side. Neither of these presents a point, but a surface which in persons well-clothed in flesh occupies considerable area. When measurement is made from the umbilicus or episternal notch to the middle of the sole of each foot (Sayre's method, I believe), this difficulty is, perhaps, done away with. I have, however, for several years past adopted another plan, which is, I think, more convenient, and by which the liabilities to error (when a tape-line alone is used) are reduced to a minimum. The plan is this: The patient, lying on the floor or a table (a soft mattress will confuse any measurement), the parallelism of the iliac spines and the proper extension of the limbs being looked to, a point is taken on the umbilicus, and marked with ink, if necessary. Commencing at this point, the tape is carried in turn *around the sole of each foot and back again to the point of departure*. The difference between the two measurements thus obtained represents *twice* the amount of difference which exists in the length of the limbs. For instance, if the measurement thus obtained when the tape is carried around the right foot is fifty-four inches, and when carried around the left foot it is fifty-five inches, the difference in the length of the limb is *half an inch*.

Of course care must be taken to carry the tape around corresponding portions of each foot, and in the same direction—from within, outward, or *vice versa*—on both sides. A great amount of swelling in the foot may also occasion error, but not to the extent it might be imagined. I think the method described will be found convenient and useful, either when employed alone or to verify results obtained by other plans. It has the advantage of indicating small differences, as these are multiplied.

Richard O. Cowling, M.D.

Louisville, Ky.

THE TONIC AND THE SPECIFIC ACTION OF MERCURY.

To the Editor of The Medical Record.

Sir:—I believe you always allow a few lines for the correction of an error, and a very serious one appeared in your issue of May 5th, page 282. Your reviewer of the "Tonic Treatment of Syphilis" there says, "The gist of this book is, that mercury is a tonic in syphilis, hence it must be given."

Such a doctrine is absurd, and I cannot accept the responsibility of fathering it. It is not even remotely hinted at in the book criticised. A portion of one of the chapters indeed is solely devoted to proving the contrary, namely, that the iodides, while more tonic than mercury, have no curative action over the disease.

The specific action of mercury is treated as a matter of universal recognition (pp. 12, 26, 27), and no new theory is advocated. The book is simply this: a rational treatment is studied and *proved* to be not only not injurious, but (accidentally) tonic to the patient, and therefore it is recommended to the profession in detail on a basis of fact.

An effort is also made in the book to help sweep away a nearly universal prejudice against a much abused drug.

The author of the "tonic treatment" has a theory which fully explains the "modus operandi" of the tonic (not of the specific) action of mercury, which your reviewer demands; but he has not published this theory, preferring to confine himself to facts.

Two errors of fact made by your reviewer require correction; his statements (1) that mercury has been long and generally *recognized* as tonic; (2) that Fournier founded the continuous mercurial treatment of syphilis—since it is notorious that this eminent gentleman has founded a treatment the very essence of which consists in intervals of intermission between interrupted mercurial courses.

Very respectfully,

E. L. Keyes, M.D.

20 Madison Ave.

A QUESTION OF PRIORITY.

To the Editor of The Medical Record.

Sir:—In the Record for April 21st, there seems to be a credit given to Dr. S. W. Gross for a very ingenious and valuable device for securing extension in fractures below the knee The credit properly belongs to Dr. H. F. Montgomery, of Rochester, N. Y., who described the device and its application in the April (1871) No. of *Am. Jour. Med. Sciences*.

Respectfully yours,

M. A. McClelland.

Knoxville, Ill., April 23, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 29 to May 5, 1877.

PROMOTIONS.

Sloan, Wm. J., Lieut.-Colonel. To be Colonel and Surgeon, *vice* McCormick, deceased.

Perin, G., Major. To be Lieut.-Colonel and Surgeon, *vice* Sloan, promoted.

Huntington, D. L., Captain and Asst. Surgeon. To be Major and Surgeon, *vice* Perin, promoted.

Phillips, H. J., Asst. Surgeon. Granted leave of absence for six months on surgeon's certificate of disability, with permission to go beyond sea. S. O. 91, A G. O., April 28, 1877.

Heizmann, C. L., Asst. Surgeon. Assigned to temporary duty at Fort Wadsworth, N. Y. Harbor. S O. 96, Mid. Div. Atlantic, May 2, 1877.

Girard, A. C., Asst. Surgeon. Assigned to duty at Fort Randall, D. T. S. O. 54, Dept. of Dakota May 1, 1877.

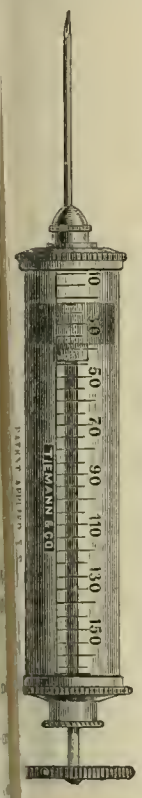
The Hospital Gazette is a new monthly medical journal published in this city. It is under the editorial management of Dr. Frederick A. Lyons, and i published by Rutledge & Co. The first number, whic is for the month of April, presents a very creditabl appearance and is filled with varied and interestin material. We gladly welcome it to our exchange li and wish it success.

New Instruments.

NEW HYPODERMIC SYRINGE.

By S. PETERS, M.D., and F. S. PETERS, M.D.,
COHOES, N. Y.

The hypodermic syringe as now constructed has some faults which need correction. If remedies for disease, antidotes for poisons, even nutrition in failure of the vital powers, in certain cases are to be often preferably introduced under the skin, certainly the instrument for accomplishing these important things should be relieved of as many defects as possible. Two or three of these which are certainly important ones we have endeavored to remedy. They are: First, the drying of the piston. Secondly, the necessity of carrying a vial for the solution; and thirdly, the loss of time in drawing the solution into the syringe preparatory to performing the injection. These several faults, as will be apparent, are overcome at once by a simple arrangement for carrying the medicated solution in the barrel of the syringe, above the piston, and for transferring at pleasure any number of minims for immediate use below the piston ready for injecting. Thus the piston is always kept moist, the solution is always secure in the syringe itself, and further, it is ready for use at a moment's notice. The peculiar construction of our syringe, by which the above is conveniently effected, is described briefly as follows: In the centre of the piston is fixed a small tube extending slightly above the upper surface; within this rotates another tube, which is fixed to the piston-rod, which as usual passes up through the cap of the syringe. In each of these tubes above the piston is made a small opening on one side. These openings when opposite form a communication between the upper and lower chambers. The operation is this: Turn the piston-rod so that the openings in the tubes are



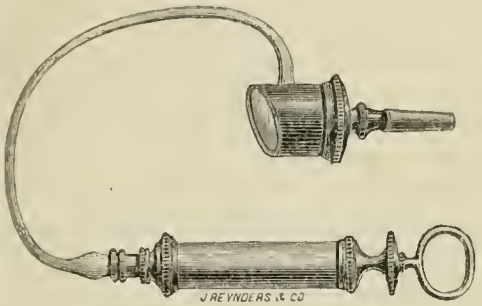
t opposite, that is till the communication is closed, ien draw the barrel of the syringe full of the medicated olution, place the finger over the point at the needle id, open the communication, and press home the pisn, thus the solution is transferred to the upper chamr, where it may be carried for any length of time, aporation being prevented below by closing the mmunication, and above by the packing in the p of the syringe. When an injection is required, the edle being fixed upon the point of the syringe, the mmunication opened, the piston is drawn up till the sired number of minims is displaced to the lower amber, then close the communication, insert the nee-e, press home the piston, and the operation is com-ted. It is very evident that this syringe can be used any ordinary syringe, even while the upper chamber filled, or rather nearly filled, with the medicated ution, because when the communication through the ton is closed, it is in all respects like any other, ice another advantage over others.

Messrs. Geo. Tiemann & Co., of New York City, ve undertaken the manufacture of this istrument.

A MODIFICATION OF SIEGLE'S OTOSCOPE.

By EDWARD T. ELY, M.D.,
NEW YORK.

The modification of Siegle's otoscope herewith presented is believed by the writer to be an improvement upon the ordinary forms of that instrument. It is



much more agreeable for the surgeon than the procedure of making suction with his own mouth—especially among dispensary patients; and it abolishes the need of an assistant, which exists when the stomach-pump attachment, suggested by Dr. Howard Pinkney, is used. Moreover, it gives the operator more complete command of the force which he employs, so that he can make this as violent or as gentle as he chooses.

The air is exhausted through the pneumatic speculum by a small syringe similar to those attached to aspirators. The body of the syringe is only three inches long and five-eighths of an inch in diameter; but it seems to be perfectly efficient. The piston is easily worked with the thumb of the disengaged hand, while the action of the drum-head is watched under illumination from the forehead-mirror. The valves of the syringe being so arranged that the air can escape only backwards, as many movements of the piston as desired can be made without removing the speculum from the ear. The rubber tubing should be very flaccid, as it will then collapse the instant a vacuum is formed, thus giving a trustworthy sign of that fact to the surgeon. The usual precautions about having the speculum fit the auditory canal accurately should of course be observed.

Anything which renders the diagnostic and therapeutic uses of Siegle's otoscope so simple and agreeable would seem to be of advantage. A busy surgeon often omits some of his possible appliances for diagnosis and treatment simply because their use is attended with a little inconvenience.

The instrument described above can be procured of Reynders & Co.

Health Board of Minnesota.—The fifth annual report of the State Board of Health of Minnesota contains much valuable information for the student, the practitioner, and the statistician. Although there has been less epidemic prevalence of disease, less sickness, and less mortality than for several preceding years, the reports on "Infant Mortality," small-pox, and the means for its prevention, scarlet fever, and other eruptive diseases, etc., are very thorough. The inspection of the public institutions form an important feature of the report, and should be emulated by our Metropolitan and State Boards of Health. The essay on the heating and ventilation of schools, etc., especially deserves a careful perusal. the author, Dr. Charles N. Hewitt, showing a familiarity with the subject only equalled by the originality of his views.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending May 5, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
April 28.....	0	7	85	4	26	40	5
May 5.....	0	5	110	1	26	33	3

INTERNATIONAL EXPOSITION OF 1878.—Among the sections which will be contained in the International Exposition of 1878, one of the most interesting will be that of the anthropological sciences. We learn that the *Société d'Anthropologie*, of Paris, has taken the initial steps for a special exhibition of the anthropological sciences, comprising anthropology, properly so-called, and craniology; ethnography, especially that of France and Europe; paleo-ethnology or prehistoric archæology; demography or compared statistics; linguistic geography. It has appointed for this purpose a commission, the President of which is M. de Quatrefages, Member of the Institute; the Vice-Presidents are M. Henri Martin, Senator and Member of the Institute, and Dr. Paul Broca, and the Secretaries are M. Gabriel de Mortillet and Dr. Paul Topinard.

M. le Senateur Krantz, Commissary-General of the International Exposition, has placed at the command of the commission the vast space comprised in the galleries which surround the central hemicycle of the Palais du Trocadero. The commission makes a warm appeal for assistance to all those, either in France or in other countries, who are interested in the advancement of the anthropological sciences. It is the desire of the Society to present a complete inventory of the present state of the sciences.

The objects to be exhibited will be placed under the following categories: 1st, skulls and bones, mummies, preparations illustrating the comparative anatomy of the human race; 2d, instruments, systems of education; 3d, prehistoric and ethnographical collections; 4th, photographs, paintings and designs, sculptures and models; 5th, geographical charts and tables having reference to ethnology, prehistoric archæology, language, demography, and medical geography; 6th, books, journals, brochures.

ACADEMY OF MEDICINE.—At a stated meeting of the New York Academy of Medicine, held May 3, 1877, Drs. E. C. Harwood, E. J. Birmingham, and A. H. Smith were elected Resident Fellows.

EXPOSÉ OF OPIUM ANTIDOTES.—Dr. J. B. Mattison, of Brooklyn, has published some interesting facts, showing the real ingredients of these nostrums. An "opium antidote" of S. B. Collins, of La Porte, Ind., contains, according to an analysis done under the direction of Dr. E. A. Squibb, sulphate of morphia in the proportion of 4.45 per cent., with a little glycerine and water. Another "antidote," prepared by Mrs. J. A. Drollinger, formerly Mrs. S. B. Collins, contains 3.2 per cent. of the sulphate of morphia, according to the analysis of Prof. Carmichael, of Bowdoin College. Another sample contained 1.383 per cent. Prof. Chaillé, of New Orleans, procured an article sold by J. C. Beck, of Cincinnati, who claimed it had no opium in it. Mr. J. Johnson, chemist of the New Orleans Charity Hospital, reported that it held ten grains of opium to the ounce. Drollinger claims that her antidote "does not contain opium in any of its numerous forms."

DR. GURDON BUCK.—At a meeting of the New York Medical and Surgical Society, held April 14, 1877, the following resolutions were adopted:

Resolved, That the members of this Society have heard with sincere regret the tidings of the death of their distinguished associate, Gurdon Buck, M.D.

Resolved, That we entertain a grateful recollection of the qualities of mind and heart by which he distinguished himself as an able and skilful surgeon, a sincere friend, an upright citizen, and an earnest Christian.

Resolved, That we tender to the family of the deceased our sincere sympathy with them in their painful bereavement.

Resolved, That a copy of these resolutions be sent to the Medical Journals, and to the family of the deceased.

JAMES R. WOOD, *President.*
J. W. MCLANE, *Secretary.*

MORTALITY OF SURGICAL OPERATIONS IN THE UPPER LAKE STATES.—A pamphlet "On the Mortality of Surgical Operations in the Upper Lake States, compared with that of other Regions," by Edmund Andrews, A.M., M.D., gives a complete résumé of the opinions of the greatest surgeons on the value of operations and the causes requiring them. To the discussion of each opinion are appended remarks showing the contradictions of the chief surgical authorities. The materials for this essay have been gathered from the surgical literature of both continents with great care, and the search for statistics among French, German, and other authorities has evidently been attended with immense labor. The results of some operations in the Lake States differ remarkably from those in other regions. Thus herniotomy shows a mortality of 24 per cent. in the Lake States while abroad the mortality is 49 per cent. Resection of shoulder, abroad 32 per cent., in Lake States 0 per cent. Ovariotomy, in Lake States 28 per cent., abroad 29 per cent., while, on the contrary, lithotomy and other operations are more dangerous in the Lake States the mortality in laryngotomy and tracheotomy abroad averaging only 54 per cent., while in the Lake States it is 81 per cent.

This is the most thorough condensation of the subject in our language, and will be of great use to surgeons desiring to know the risk of each operation and the opinion of the authorities concerning it. The pamphlet is a reprint of Dr. Andrews's recent series of articles in the *Chicago Medical Journal.*

MEDICINE AND INFIDELITY.—In his valedictory address to the graduates of the University of Louisville, Dr. Richard O. Cowling discusses the relation of medicine to modern unbelief in a very able manner and disproves the assertion that wherever three doctors are gathered together there will be found two infidels. Paget, John Hunter, Gross, Rogers, and others are cited as examples of devout Christians, whose professional calling and scientific attainments did not cause them to become infidels.

THE TRAINING-SCHOOL FOR NURSES to be opened at the New York Hospital includes, in its course of two years, practical and theoretical instruction in medical, surgical, and special nursing, bandaging, the eleme

of anatomy, physiology, hygiene, etc. One month in each year will be passed in the kitchen, and one in the laundry, experienced instructors directing each department. A second class will be formed at the end of the first year, and the first class will become head nurses of the wards for the second year. Each candidate must pass a satisfactory examination before receiving her diploma; must be between the ages of 20 and 30, strong, in good health, and of fair English education. The limit is twelve students to each class, and a certificate of good character from a satisfactory source is indispensable.

All the provisions are excellent with the exception of that relating to the ages of applicants, which might be extended to forty or even forty-five years without prejudice to the institution. There is one instance where the youth of the nurses in a training-school was a positive disadvantage to the patients, a source of vexation to the matron, and a paradise of flirtation to the young ladies in training.

Health of Georgia.—The Second Annual Report of the State Board of Health of Georgia is replete with practical suggestions, the most important of which is the refutation given by the figures of the different tables to the theory of the local origin of yellow fever. The loss caused by this dreaded scourge is estimated at $5,862,357.00; but to the families rendered desolate this amount is a mere trifle, death having removed what was priceless.

Willard Asylum for Insane, N. Y.—The Eighth Annual Report of the Trustees of the Willard Asylum for the Insane shows a freedom from debt and a general prosperity which is refreshing. The whole number treated was 1,280, and the daily average during the year was 1,076. Various improvements already made and in progress show the energy and zeal of the directors of the institution. The Asylum was instituted by the Act of 1865, creating it for the better care of the insane poor, and it has fully met its purpose, being to-day a noble monument of charity, and an honor to the State.

Dr. Seguin's Prescription and Clinic Record is a valuable aid to the busy practitioner, its object being to give more precision and certainty to prescriptions by writing them twice—once for keeping, the other for the apothecary—to record the signs of disease on the spot, etc., to enable a physician to continue the treatment of an absent confrère, etc., etc. In the treatment of grave disorders, fevers, pulmonary and other diseases, this record will prove invaluable.

Prof. D. B. St. John Roosa, of this city, has been elected Corresponding Member of the Medico Chirurgical Society of Edinburgh, Scotland.

Maryland Medical Journal, Baltimore.—The first number of this journal has made its appearance under the editorship of Dr. H. E. T. Manning and T. A. Ashby, who are also the publishers and proprietors. It is of octavo size, thirty-six pages, and presents an exceedingly creditable appearance. The editorial announcement, after rehearsing the triumphs of medical journalism, says: "And yet, with all this array, there is room, we believe, nay more, there is need for further enterprise in this department of literature." We hope that the profession in and around Baltimore will be ready to give a practical endorsement of this sentiment.

The Report of the First Congress of the International Otological Society, held in New York, Sept., 1876 (D. Appleton & Co., N. Y.), contains the following: Report on the Progress of Otology, by Drs. C. H. Burnett and C. J. Blake; Aspergillus Glaucus in the Tympanum, with a case, by Dr. C. H. Burnett; Primary Acute Periostitis of both Mastoid Processes, by Dr. H. Knapp; Case of Exostosis of the Ext. Auditory Meatus drilled out by the "Dental Engine," by Dr. Arthur Matthewson; Test Sentences for determining the Hearing Power, also two cases of Acute Inflammation of Schrapnell's Membrane, by Dr. A. H. Buck; Sketch of Early Development of Ear and Eye in the Pig, etc., by Dr. David Hunt; Perforation of Membrana Tympani with scarcely a Symptom of Disease, by Dr. E. L. Holmes; Gaseous Interchange in the Tympanic Cavity, etc., by Dr. A. Loewenberg; Application of Paper Dressings in the Treatment of Perforations of the Membrana Tympani, by Dr. C. J. Blake; Case of Abscess over the Mastoid Region, etc., involving Brain without harm to Auditory Apparatus, by Dr. O. D. Pomeroy; Syphilis of the Cochlea, (Cochlitis), by Dr. D. B. St. John Roosa; and Hyperostosis of the Mastoid, by Dr. J. Orne Green.

Sacrificed to Professional Duty.—Dr. N. Gerhard Hutchison died April 10th, in his 24th year, a victim to diphtheria contracted in the pursuit of his calling. He had been attending several cases of that disease, and about one week before his death performed tracheotomy for the relief of one of them. Soon after he was himself attacked, the disease running a rapid and most painful course. He was the third in a direct line of physicians, the only son of Dr. J. C. Hutchison. His untimely demise falls with grievous weight upon his parents and family. He was a graduate of the College of Physicians and Surgeons in 1875, held the assistant-surgeoncy of the Twenty-third Regiment, and had been connected with St. Peter's Hospital and Orthopædic Infirmary. —*Proceedings Med. Soc., Co. Kings, Brooklyn, N. Y.*

American Medical Association.—The twenty-eighth annual session of this Association will be held in the city of Chicago, Ill., Tuesday, June 5, 1877. Secretaries of medical societies are requested to send list of delegates as early as possible to Dr. A. B. Atkinson, Permanent Secretary, 1400 Pine Street, Philadelphia, Pa.

District Medical Society, County of Hudson, N. J.—At the Annual Meeting of the District Medical Society for the County of Hudson, N. J., held in Jersey City on May 1st, the following were elected for the ensuing year:

President, Dr. Henry Mitchell; Vice-President, Dr. W. R. Fisher; Secretary, Dr. L. J. Gordon; Treasurer, Dr. F. Geisler; Reporter, Dr. M. Sampson.

Delegates to the Medical Society of New Jersey: Drs. S. R. Forman, J. W. Hunt, T. F. Morris, J. J. Prendergast, J. R. Waldmeyer, L. J. Gordon, W. R. Fisher.

Delegates to the American Medical Association: Drs. A. A. Lutkins, J. H. Vondy, J. W. Hunt, F. C. Selnow.

Ambrose Paré and the Ligature.—Mr. H. Wood, Jr., printseller, 826 Broadway, has published an excellent, large-sized photograph of the celebrated engraving of Ambrose Paré at work upon the battle-field. The surgeon forms the central figure of a group of twenty or more standing by a patient, after having performed amputation at the lower extremity. With one hand he grasps the femoral with the forceps, and in the other some ligatures, declining the cautery irons which are proffered and ready for use. The patient vividly represents the old-timed horrors of amputation. Half-supported and half-controlled by

assistants, the expression and *pose* are studies. In the foreground the rude hand-furnace is heating the irons, and a surgeon applying one of the latter to a perforated wound of the right chest. The other figures are admirably placed, and the make-up of the picture is artistic and imposing.

The Lecture on Anatomy.—The same publisher has also issued an admirably executed photographic copy of Rembrandt's Lecture on Anatomy, the engraving of which is now, like the preceding, very rare. The lecturer is represented demonstrating the flexors of the hand to a class of earnest students surrounding a subject.

Association of American Medical Colleges.—A meeting of the Provisional Association of American Medical Colleges will be held at the Palmer House, Chicago, on Saturday, June 2, 1877, at ten o'clock A.M. All colleges represented at the meeting of the Association held June, 1876, are invited to send delegates to the ensuing meeting, and all chartered medical colleges in the United States recognized as "regular" by the colleges already represented in this Association are also invited to send delegates from their Faculties to the said meeting.

J. B. Biddle, M.D., President.

Hydrophobia.—Deaths from hydrophobia, which have occurred recently in the Prussian-Rhenish province, have called the attention of the Government to the practice, much prevailing there, of having persons who show symptoms of hydrophobia treated, instead of by a medical man, by a Roman Catholic priest. The consequences have naturally enough and invariably been disastrous to the patients. Another superstition existing in the Rhenish province is the belief that the bite of dogs which have been burned with the Hubertus key can never be dangerous, and this belief is producing a large revenue to a Belgian convent, which sends out emissaries with Hubertus keys to perform this interesting operation. The Prussian Government has now, in order to prevent further misfortunes, reminded the Roman Catholic clergy of a Government decree, according to which the clerical treatment of persons showing symptoms of hydrophobia can be commenced only when it has been proved to the priestly operator that the person bitten is already under medical treatment.

Obstinate Constipation.—The following letter, addressed to a practitioner in this city by a patient, is self-explanatory. It is to be hoped that some of our readers may be able to suggest a convenient and efficacious remedy:

"During my short but eventful career I have punished my share of all kinds and descriptions of ardent *spirits*. For the past seven months I have not drank a drop. During all that time, and for the first time in my life, my bowels have been in a state of chronic constipation, and I have no doubt my liver is like a piece of cork. One of your most powerful liver-stirring doses, which would probably nearly physic a horse to death, appears to agree with me, like a suitable meal of victuals, and causes only one gentle movement, apparently natural. After that, if I took no more cathartic of some kind, I should probably go a year or two without further movement.

"Of course, this is a very convenient state of things, but I am afraid I should eventually fill up, so that my victuals would not taste well, and besides I might die in the summer-time and am afraid I shouldn't keep well. I thought, perhaps, you might prescribe a sort of pill diet, and allow me to break my strict temperance rules by taking one or two castor-oil cocktails before breakfast, with an aloes punch in the middle of the day. I went one whole week, eating nothing but oatmeal, corn-meal gruel, baked and raw apples, etc., etc. It made no difference, and it convinces me that there is something wrong about the organization of my *innards*.

"If you think my liver is unfit to preside over its department, could you appoint some one of my other vitals '*Liver ad interim*'? Anything you say. I am not one of the kind who always imagine themselves sick; I am well enough any way, but either want some benefit from my numerous bowels, or else I don't want the trouble of carrying them about.

"I shall expect you to charge one visit to pay you for reading this amateur diagnosis, and then if you agree with me that my bowels are of no further use to me, render me a bill, I will pay up, and at once commit harikari."

Fothergill's Handbook of Treatment.—Dr. A. H. S., of this city, writes: "Permit me to call attention to two typographical errors in Fothergill's *Handbook of Treatment*, which might pass unnoticed and lead to disastrous results. On page 45 is given a formula containing hydrocyanic acid, in which the bulk is directed to be increased by the addition of water to eight *drachms* instead of eight *ounces*, as was doubtless intended. As the prescription now stands the patient would take at once twelve to sixteen minims of the dilute acid, which might render a repetition of the dose unnecessary. On the very next page a small *l* is substituted for a small *i* in prescribing extract of nux vomica, thus multiplying the dose by 50. As this is required to be made into a pill, this error is less dangerous than the other; still, there is no telling what a young machine-made doctor and a country grocer-druggist might not do with such a prescription."

Propagation of Typhoid by Milk.—The medical officer of health for St. Pancreas, Dr. Stevenson, reports a circumscribed outbreak of typhoid fever in his district, which was determined by the distribution of the typhoid fever poison in a particular milk-supply. Forty-six cases of the disease occurred within a brief period, and of these cases forty-one consumed milk obtained from one and the same source. Of the five other cases, two were imported into the locality, two were developed under conditions ordinarily associated with typhoid fever, and of one no obvious cause could be ascertained. A detailed examination of the cases showed that the only link of connection between the greater number, which seemed likely to be concerned in the production of typhoid, was the community of milk-supply.

Prevention of Overcrowding in Tenements.—In Glasgow all houses under a certain size are under police inspection. Every door bears a ticket marked with the number of cubic feet of space contained in the dwelling, and the number of inhabitants it is licensed to contain. Three hundred cubic feet of space is allowed for each adult, and 150 for each child. Ordinary dwellings and lodging-houses are distinguished by the shape of the ticket.

Suicides in France.—Last year the number of suicides in France was 5,617, of whom 4,435 were men. Hanging was the measure resorted to by 2,500 individuals, 1,514 drowned themselves, 895 blew out their brains with firearms, 407 suffocated themselves with charcoal fumes, 129 swallowed poison, 154 threw themselves from public buildings, 13 elected to be cut to pieces under railway trains. The assumed causes, stated in their order of frequency, were as follows: Insanity, drunkenness, physical suffering, domestic trouble, fear of poverty. The greater number of suicides belonged to the class of peasantry.—*Lancet.*

Original Lectures.

DIABETES INSIPIDUS—FIBROUS PHTHISIS—TUBERCULAR MENINGITIS.

A CLINICAL LECTURE

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

BY FRANCIS DELAFIELD, M.D.,

ADJUNCT PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—The case before us presents the following history. The child is now twenty months old. When six months of age, the mother first noticed that it passed more water than usual, and, at the same time, that it was very thirsty. At that time, the child also began to lose flesh and strength, and all these conditions have continued up to the present time. The child now passes about four quarts of water every twenty-four hours, an amount considerably too large for one of this age. The specific gravity of the urine has varied from 1,003 to 1,005. It contains no sugar. The appearance of the patient is better than one might expect after having passed such a quantity of urine for such a length of time.

We have to deal, then, with a case of the disease known as *diabetes insipidus;* simply an increase in the amount of urine passed, without the presence of sugar. The prognosis is very much better in such cases as this than in those in which sugar is present in the urine. We seldom see either of these diseases, diabetes insipidus or diabetes mellitus, in children at this age. We do see a simple increase in the quantity of water passed by children four or five years of age, but it is quite uncommon to find that condition present in children under one year of age. The prognosis in this case is not particularly bad. There is no reason why the child should not get entirely well. If, however, there was sugar in the urine, the prognosis would be particularly bad. True diabetes occurring in young children is a disease which is not at all amenable to treatment. This child has already been taking the valerianate of zinc combined with small doses of opium, and, although there has been some improvement in the general health, there has been but little or no diminution in the quantity of urine passed.

The two drugs which are most commonly employed in the treatment of this trouble in children—to diminish the quantity of urine discharged—are valerian and belladonna. The preparation which the child has been taking, the valerianate of zinc, is of service in some cases. The simple tincture of valerian answers a very good purpose not infrequently. I have, however, employed belladonna more frequently than valerian. It may be administered either in the form of extracts, or the plain tincture may be used. Of the extracts, I prefer the fluid extract, and especially in so young a child as this; it must first be administered in small doses in order to avoid the poisonous effects of the drug. In fact, instead of using the belladonna, I prefer its active principle, atropine, simply for the reason that it can be given in more minutely divided doses. I should, therefore, for this child have a solution of atropine prepared of the strength of one grain to the ounce, and of that I should give five drops once a day. Five drops of such a solution then will be administered and its effect watched. If no constitutional disturbance is developed, no complaint about the throat, no disturbance of the stomach or bowels, I should increase the remedy by giving five drops twice daily. If no ill effects follow, it may be given three times a day, and in due time the size of the dose may be increased until six or seven drops are given, and repeated until the point of tolerance is finally reached. The physiological effect of the drug must be produced, as nothing short of that seems to answer the purpose. At the same time, it is very important that a child in this condition should take cod-liver oil. A teaspoonful may be given by the mouth three times a day, or if it does not agree with the stomach, the oil should be rubbed on the skin once a day. In some manner, either internally or externally, the oil should be administered. Besides, you should insist that the child be thoroughly washed every day with warm water and soap, be clothed with flannels which cover the entire body, and if the weather is pleasant, that the child be carried out-of-doors daily. If this can be done, the probabilities are that the child will get entirely well.

Subsequent History.—Atropine in doses of $\frac{1}{100}$ of a grain was administered until a slight rash was produced, and also some dilatation of the pupil. The improvement was marked, and it was directed that the drug should be continued in such doses as would secure its "*continuous*" effect.

PHTHISIS OF TWELVE YEARS' DURATION—REPEATED HÆMOPTYSIS.

This man, forty-two years of age, gives us the following history:

In 1864 he spat up a small quantity of blood. He had a cough at that time and some fever, but recovered and remained well for four or five years, when another attack came, and he raised about half a pint of blood. The man feels quite certain that he coughed the blood up. From that attack he recovered, and remained apparently well for a year and a half, when he raised blood in quantity somewhat larger than at any previous attack. From that attack he also recovered very rapidly, and seemed perfectly well at the end of a few days. He then was able to work for three and a half years. Last year, in March, he began to raise blood again in small quantities. He had a hemorrhage, ceased work for a few days, seemed well, returned to his work, raised blood again, and so the case went on until July, when he raised about half a spittoonful, as he says, and soon after about the same quantity. Since that time he has raised blood in varying quantities, not large, about every four weeks. At his last hemorrhage he raised only a small amount of blood. He has lost considerable flesh, and now feels too weak to work.

Such, gentlemen, is the history of this case, and it is not at all like that of ordinary phthisis. In the first place, it is difficult to be certain, from the man's statement, whether the blood has really come from the air-passages. If he has coughed it up—and he seems to be disposed to believe that such has been the case except in one instance—then the question arises whether it is simply hemorrhage from the bronchi, without lung disease, or whether he has more or less phthisis.

It is possible for a man to have hemorrhage from the bronchi the same as from the nose, and have repeated hemorrhages, without any lung disease. A physical examination, doubtless, will assist us in solving these questions.

Physical Examination.—It will be noticed, first, that this man is only moderately emaciated. There is a distinct epigastric pulsation. There is a diffused cardiac impulse, without distinct apex beat.

Percussion note is duller in the infraclavicular region upon the left than upon the right side. Subcrepitant râles are heard over the point of dulness at

the apex of the left lung. Posteriorly, we find good respiratory murmur over the right lung, but fine subcrepitant râles over the left, although there is no dulness upon percussion. The case then is one of *phthisis*, and the point of interest in it is the long time which it has lasted. The disease probably began twelve years ago, and the man has had occasional attacks of hæmoptysis since that time; yet, with the exception of such attacks, has been in fair health. He has not had much cough, and for a considerable time after the commencement of the disease was able to work. I think there can be no question with regard to the form of phthisis this man has. It is that form in which the disease is confined to the interstitial tissue of the lungs without involving the air-vesicles. If we could look at the left lung of this patient, the greater portion of it would be found studded with small white or grayish, or blackish nodules, most of them not larger than the head of a pin; in places these nodules might be aggregated in patches. At the left apex we should also find, in addition, fibrous bands and patches of fibrous tissue extending through the lung and rendering it solid. This, quite certainly, is the anatomical condition of the left lung in this man.

Now, with regard to prognosis and treatment. Although the disease had advanced so far the prognosis is tolerably good. If the man takes proper care of himself he may live for a long time. The treatment is entirely constitutional. He might be benefited, perhaps, by a change of climate, and he should take tonics and cod-liver oil. No local treatment whatever is required.

TUBERCULAR MENINGITIS.

The history of this case is very straightforward. The child is a little more than three years old, and has always been healthy until one week ago, when she began to vomit, and the vomiting has continued daily up to the present time. She is not particularly restless, but manifests a desire, when on the bed, to get to the edge, so that her head can hang over. She does not pass water as freely as natural; indeed, has not passed any since yesterday morning. The only complaint the child makes is that she "is sick in the head." She has had some fever. The child's mother has suffered from some form of lung trouble, probably phthisis, but aside from that there is no trace of family taint. A case of phthisis can almost always be found somewhere in the family of one who has tubercular meningitis.

Such a case as this is rarely seen at a college clinic.

One week ago this child was taken sick rather more suddenly than the average of cases of tubercular meningitis. The ordinary description is that the child has been peevish and irritable for several days previous to the development of the more marked symptoms. This is the rule, but it is a rule which has its exceptions, and the case before us is one of those exceptions. In this case, the child, previously in good health, was suddenly seized with vomiting, and the vomiting has continued up to this date. Within a day or so after the child began to vomit, she began to have fever, and has had some febrile movement ever since. Exactly what the febrile movement has been we cannot determine, for no thermometrical record has been kept. The temperature in this affection, however, is not necessarily very high; there is no typical curve, perhaps, but it is very irregular. Sometimes it may be down to normal, and again it may rise as high as 103° or 104° F. In some cases the temperature will be no higher than 101° or 102° F. until the last days of the disease.

Besides the vomiting and febrile movement which this child has had, it will be noticed that it lies perfectly relaxed and looks as if asleep. It is not asleep, however, but is simply lying quietly with the head thrown back. If placed upon the bed it would lie in the position placed, and remain there indefinitely.

Such perfect apathy is quite characteristic of tubercular meningitis. In some cases this apathetic condition will alternate with periods of restlessness; that is, instead of lying quiet, the patient will be restless, move itself about, roll its head, cry out from time to time, and these spells of restlessness may continue for half an hour or an hour, and then the patient will lapse into this apathetic condition. This child, however, has not manifested this restlessness. There is no change in the pupils, but there is slight strabismus of the right eye. In some cases there is dilatation of one or both pupils, but in this case there is only the strabismus.

The slowness in passing the water is also quite frequent in these cases. You will observe that the child has not passed water in about thirty hours. This is not infrequently the case in this disease, and the children may not pass water for even three or four days. This is a symptom of less importance in children than it would be in adults. Children at this age have, as it would seem, a kind of fancy for not passing water when sick; they do not wish to pass water, even though the bladder manifestly contains a considerable quantity. Again, with different diseases of children there may be marked diminution in the secretion of urine for one or two days, without doing much harm. It is quite common, in tubercular meningitis, to find that the urine is passed with less frequency and in smaller quantities than normal. The vomiting, which has continued from the day of attack until the present time, the febrile movement, the pain about the head, the condition of permanent apathy, the strabismus, and the diminished excretion of urine, make up the symptoms of the case. The pulse is increased in frequency. The respiration has none of the peculiarity which is frequently developed in connection with tubercular meningitis—the sighing respiration.

Now, as to the length of time this child will probably be sick. There is little or no chance for recovery, and the question may be asked, how long will it be before death will take place? The probabilities are that the child will die within a week. The disease has appeared more rapidly than usual, and the cerebral symptoms are all very marked. As the child gets worse, the apathetic condition will become more and more marked until coma is fairly developed. The temperature towards the close of the disease will probably rise, the pulse will become more and more frequent, and the vomiting may continue up to the end, or it may cease at any time.

Now, as to the *treatment* of the disease. The treatment of these cases is very much biassed by the peculiar views held by each practitioner regarding the possibility of recovery. My own opinion is that cases of tubercular meningitis never recover. I do not, therefore, care to disturb the child with any treatment calculated to cure the disease. I do not care to put blisters to the nape of the neck, or to adopt any active treatment whatever. It simply disturbs the child, and, in my opinion, has no good effect upon the disease.

For this child the only symptoms which may claim relief are the vomiting and the condition relating to the urine. The child is tolerably comfortable except for the vomiting and the diminished secretion of urine. I should be disposed, therefore, to give the simple effervescing draught (bicarbonate of potash

and lemon juice), which may serve the double purpose of acting as a sedative for the stomach and increasing the secretion of urine.

In order to still farther increase the secretion of urine, I should be disposed to give the child a hot bath; one to-day and probably repeated to-morrow. Let the child be placed in a tub of hot water for about five minutes, then be removed, and, without drying, be wrapped in warm blankets and allowed to sweat for two or three hours. It will probably pass water while in the hot blankets. This is one of the best means for making children pass their water that can be employed. When something is required to keep the patient quiet, a mixture of chloral hydrate and bromide of potassium is the best that can be employed.

If you entertain the idea that any effect can be produced in the way of retarding the progress of the disease, you will probably resort to counter-irritation and the use of iodide of potassium in such doses as may be deemed necessary.

Subsequent History.—The child died at the end of the fifth day after the above record was made.

Original Communications.

ON THE UNITY OR DUALITY OF SYPHILIS.

By F. N. OTIS, M.D.,
NEW YORK.

A new contribution to the literature of this subject invites attention for the reason—if for no other—that the most learned, experienced, and impartial men in our profession are about equally divided in their opinions on the cardinal points which a discussion of it necessarily involves.

In an elaborate article, from the pen of Mr. John Milton, of London (which appeared in the Record, April 7th and 14th), the views of M. Melchior Robert, of Paris, a well-known unicist, are made the subject of attack. Mr. Milton goes back sixteen years to find a pure unicist, in the person of M. Robert, and states that his (Robert's) views would be found to cover all the essential points claimed by the unicist of the present day. This would seem to indicate either that during this time no progress had been made by unicists or dualists, in the manner or results of investigation of the diseases in question, or that the issues had degenerated into a political quarrel, in the course of which the tide of success or popularity had swayed from side to side in accordance with the partisan enthusiasm which the leaders were able to infuse into the rank and file. The latter view is suggested as most probable in the closing paragraph of Mr. Milton's paper, when, expressing his view on the present status of the subject, he says: "But the tide of reaction having set in towards unity it is doubtful whether any authority would have availed to check it, experience having shown that sometimes the only plan is to let the current exhaust itself."

Now, I for one am unwilling to accept a view so uncomplimentary to the intelligence and honesty of purpose of those who, for the last sixteen years and longer, have been discussing the *pros* and *cons* of the unity or duality of syphilis.

Mr. Milton brings before us M. Robert, as representing the School of Unity, to express the views of those who believe that syphilis and chancroid are in the relation of parent and child. That, without syphilis as a progenitor, chancroid would never have been brought into existence, and that thus there is a necessary connection of *origin* between what often appears to be two separate and distinct diseases. Mr. Milton himself appears as the advocate of the opposing school, who believe the doctrine of *duality*, viz., that syphilis and chancroid are separate in origin, separate in action, separate in results. Out of M. Robert's numerous points claiming to prove the doctrines of unity, Mr. Milton selects five to combat as follows:

1st. "That chancroid, developed upon a person who has had syphilis, may communicate from this *chancroid*." This position is claimed to have been established by clinical cases carefully observed, which are cited. These cases of M. Robert's are confronted by other clinical cases, also observed with care, in the practice of Mr. Milton, proving the fallacy of M. Robert's conclusions.

2d. "Chancre is capable of communicating chancroid, which is not followed by constitutional syphilis." This position is also supported by clinical observation, the correctness of which is called in question and the conclusions rejected politely by Mr. Milton.

3d. "Auto-inoculation of a suppurating bubo" (presumedly chancroidal) "may be followed by a hard sore and by constitutional syphilis." This is likewise objected to as without force in view of incompleteness of observation, and the known (from clinical observation) eccentricities of chancroidal sores.

4th. "Chancroid contracted from an individual suffering with syphilis, and not followed by syphilis, may communicate syphilis, to a third person." Supported by clinical observation, this is combated by citation of numerous cases in the public and private practice of Mr. Milton, and which go to show that M. Robert is wrong in his inferences if not in his premises, and this is farther supported by the quoted observations of Mr. Fournier, Dr. Bumstead, and M. Diday.

5th. "From the same source of contagion, chancre and syphilis may be communicated to one person (presumedly healthy), and simple chancroid to another." This is not accepted by Mr. Milton as bearing upon the question of unicity at all. Then follow about a dozen "*theorems*" or positions held by M. Robert in favor of unity and substantiated by clinical cases, and these "theorems" are squarely rebutted by the cited results of clinical observation in the practice of Mr. Milton, and by close and cogent reasoning therefrom are shown to prove the falsity of M. Robert's deductions, and to establish beyond question the doctrines o duality. Mr. Milton, with all this, accords to M. Robert the position of an able observer and an amiable antagonist.

Now, while I would not for a moment call in question the soundness of Mr. Milton's views, nor the logical correctness of his deductions, I would say that we have in his article simply a repetition and a very good example of what has been going on in the medical profession here and abroad for the last forty years, viz., a series of *clinical* observations, which are brought forward to prove certain doctrines, and these pitted against similar observations and deductions, which are cited to prove diametrically opposite doctrines; and thus we are to-day, inclusive of Mr. Milton's article, relatively in the same position—not one whit nearer agreement, as a profession, in the matter of unity or duality, than in the beginning of the contest forty years ago.

Is it not, then, time that some other methods of getting at the absolute truth of the matter were generally adopted? Clinical observations, which have been thus far almost solely relied upon for the solution of the *questio vexata* of venereal diseases, are as a rule

made under such peculiar embarrassments, moral, mental, physical, and circumstantial, that the same apparent conditions falling under the notice of one observer often present phases and peculiarities in the practice of another that warrant entirely different conclusions, and hence it is that, notwithstanding that the diseases syphilis and chancroid have been studied by numerous earnest, honest, and competent observers for a very long period, wide and sincere differences of opinion exist in the matter of unity and duality. These can never be completely settled until some other and more philosophic mode of arriving at conclusions shall be adopted than that offered by clinical observations alone. To this end the *science* of the subject demands our attention, more especially as the great advances in general and minute physiology and pathology have within the past few years rendered it possible to understand and appreciate the true nature of many morbid conditions and processes, which no amount of ability, earnestness, or research could have deduced from clinical observation alone.

Biesiadecki has shown by careful microscopical examinations of chancre and chancroid that there is a difference in the histological condition of these lesions. Throughout a large number of observations he has found that, in every examination of a section of undoubted uncomplicated *chancroid*, the appearances were identical with those of *simple ulcerations*, while in his examinations of the *true infecting chancre*, relatively, a greatly increased accumulation of the white corpuscular element was found. That while in the chancroid the usual *inflammatory* accumulation of white blood-cells in the tissue, and surrounding the blood and lymph vessels (as is characteristic of the simple inflammatory process), were found, the interior or lumen of the vessels was quite free. In the true chancre, in addition to the usual inflammatory cell accumulation in the perivascular structures, the *interior* or *lumen* of these vessels was *packed* with the white cells to the extent of obstructing the circulation through the vessels, and that thus a distinct dryness as compared with the chancroid tissue was present, and this sufficient to be characteristic. and in some measure at least to account for the induration recognized as diagnostic of the chancre or initial lesion of syphilis.

Kaposi, a unicist, has recognized the same peculiarity, viz., the invasion of the lumen of the vessels by the increased proliferation of white blood-cells as compared with chancroid, although he has not accepted it as a diagnostic difference. What would naturally be inferred from these histological discoveries? One thing certainly, viz., that in the chancre there was an increased accumulation of white blood-cells as compared with that occurring in the chancroid. Does not this indicate a difference in the processes which produce the chancre and the chancroid? In the chancroid we have only the cell-accumulation, which is recognized as characteristic of ordinary inflammatory action. In the chancre we have *something more;* we have apparently an increase of *growth*, or a proliferation of the white blood-cells or germinal elements. Now what have we as the *characteristic* of the *chancroid?* It begins as an *inflammation*, which goes *directly* on to *ulceration*—to *destruction* of tissue. Without ulceration there is no chancroid. The pure, uncomplicated chancre is a *papule*, a proliferation of white blood-cells; this excessive growth and accumulation of cells is the first evidence of the disease, is the characteristic of it, and the excessive accumulation of cells is the characteristic of every manifestation throughout the entire course of syphilis. On the contrary, the characteristic of the chancroid is *destruction*, death of tissue. Without destruction of tissue there is no chancroid. It may also, I think, be claimed that without *proliferation* of cells there is no chancre. The one, then, is a process of *destruction*, the other a process of *growth*. The chancroid is an ulcer; its characteristic action is destruction. From its inception it exhibits the destructive tendency. A molecule of the chancroidal virus, applied to an abrasion of the skin or mucous membrane, sets up an inflammatory action *at once*, which goes on steadily to the destruction of tissue. *Pus* is its primary and legitimate product. Pus, which if inoculated on a healthy surface, sets up a similar destructive action, and this continues during the existence of the lesion. Now let us inquire as to the significance of this destructive action. Is it a process *sui generis* due to a specific influence, only capable of being established by a chancroidal element or principle, or is it in line with vitiated natural processes, capable of being established by other causes? Pus from a simple acne, as has been shown by Pick, Kaposi, Roeder, Zissel, Wigglesworth, and others, may, by inoculation on a subject free from syphilis, produce a sore which cannot be distinguished from the chancroid. It has the property of destruction, the power of being repeated in successive generations. Kaposi says: "My own experiments have taught me that non-syphilitic pus, such as we find in acne and scabies pustules in non-syphilitic persons, when inoculated upon the bearer as well as upon other non-syphilitic persons, produces pustules whose pus proves to be inoculable in generations; that loss of substance was caused by the pustules, which healed by cicatrization, and that with the increase of the number of pustules produced by the inoculations, the contagiousness of the pus diminished, and finally became quite extinguished. Is not this the description of *chancroid?* And if this process, which appears to be identical with chancroid, can be set up in persons free from syphilis, and without the influence of syphilis, most certainly it is *not* syphilis. Chancroid, or lesions identical with it, then, is a process of *destruction* of tissue capable of being set up by various causes. Syphilis is a process of proliferation, and may be developed independently of the ulcerative action—*may* proceed throughout its course without the ulcerative action. Is it not, then, fair to conclude it is a disease independent of chancroid and its congeners, which are characterized by the destructive property alone? It can be shown conclusively that the one is a destructive process, the *chancroid*—the other a process of proliferation of growth, *the chancre*. If by chance they are associated, they are only associated as life and death are associated. This is the only legitimate and logical conclusion that can be deduced from the premises, and can these premises be disputed? Certainly only by *scientific investigation*, not by clinical observation, which alone, as has been shown, is beset with many elements of error and uncertainty. This one idea is inevitable, in the light of past experience, viz., that no amount of clinical observation, or deduction from any clinical observation, can avail in determining the truth in regard to unity and duality. Nothing but careful microscopical research and analogical reasoning can be relied upon to solve the vexed question of unity and duality.

108 West Thirty-fourth St., May 8, 1877.

Sick-Headache.—Dr. H. W. Hendrick, of Hyde Park, Vt., has had excellent success in the treatment of sick-headache, by guarana in powders, grains five to fifteen for a dose.

Reports of Hospitals.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

AN ABSTRACT OF MEDICAL CLINICS, DELIVERED AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

By Dr. Wm. PEPPER,

PROF. OF CLINICAL MEDICINE.

(Reported by Samuel M. Miller, M.D.)

CHRONIC INFLAMMATION OF THE BOWELS.

The patient, a man thirty-four years of age, dated his symptoms back to the years 1861–65, when he served in the army. The troops were at that time encamped in swampy ground, and nearly all of them suffered from the effects of bad air and water, frequently complicated with malaria. This often brought on a chronic follicular catarrh of the small intestines, followed by an enlargement of the solitary glands and to a less extent of Peyer's patches, a thickening of the coats of the bowels, and the discharge of increased secretions. This was the usual type of camp diarrhœas. The man's more recent sickness began with a violent attack of vomiting and purging, which occurred about two years ago. Ever since that time he has suffered from severe attacks of diarrhœa, lasting generally from three to four days at a time, and attended with violent griping and vomiting, and sometimes as many as nine passages daily.

We meet with such cases originating from very varied causes; in some instances occurring among the young, apparently from a morbid predisposition to irritation of the intestinal mucous membrane; in others evidently produced by causes connected with the occupation or habits of the individual. They are not rarely met with in women after the cessation of menstruation, where they seem to be due to irritation set up by the accumulation of matters previously regularly discharged. In those who are the subjects of chronic catarrh of the intestine, the causes which produce such sudden attacks as above described are often inconceivably slight, such as draughts, indiscretion in diet and clothing, anxiety, bad news, etc. The attacks generally last from one to three days, and are always paroxysmal in their nature.

In the management of such cases individual symptoms must be borne in mind. The food taken should be thoroughly assimilable. Alcohol, green vegetables, fruits, and much solid meats should be refrained from. Buttermilk, beef-juice, milk, with lime-water, and light farinaceous foods are the safest articles of diet. The clothing should be amply sufficient, and all excessive exposure avoided. In the matter of medicines, the proper mode of treatment is that by alteratives and astringents. Among astringents the best are nitrate of silver, bismuth, the astringent salts of iron, and lead. If the diarrhœa be very marked, opium may be joined with the astringents. Dr. Pepper generally prescribes nitrate of silver in pill form, one-third of a grain from one to two hours after meals. The treatment must be long persevered in to effect a permanent cure.

CHRONIC ARTICULAR RHEUMATISM.

In the first case, that of a sailor-boy, the rheumatism, which was at first general, had become concentrated under the instep and in the sole of the foot. Its effects were intensified by the extreme natural flatness of the foot, which threw all the weight of the body on the instep and on the middle of the sole, where the tissues were as thick and as hard as under the heel. There was much anchylosis of the joints, and the plantar nerves were pressed upon and irritated by the indurated tissues.

The successful mode of treatment has been by manipulation of the anchylosed joints and counter-irritation applied to the nerve-trunk higher up the leg. The continued current with the positive pole placed over the point of tenderness, and the negative pole higher up the nerve, may also be employed. A shoe should be constructed which shall take the strain off the painful point and throw the weight of the body on the outside of the foot. Iodide of potassium may be given internally.

The second case, rheumatism of the ankle-joints in a young girl with a rheumatic diathesis, was brought on by scrubbing in her bare feet. The girl was able to notice the curious fact that *the pain and soreness always increased before and during bad weather.*

The persistent use of iodide of potassium was followed by the best of results. Dr. Pepper recommends highly the use of Zollikoffer's mixture in such cases, viz.:

℞. Pulv. resin. guaiaci..... gr. x.
Potas. iodidi..... gr. x.
Tinc. colchici sem..... f ʒ ss.
Aq. cinnamomi,
Syrupi, āā q. s. ad..... f ℥ i.
S. A dessertspoonful to a tablespoonful thrice daily.

ACUTE GASTRO-HEPATIC CATARRH.

This was one of those highly deceptive cases which display many of the symptoms of a malarial fever, but refuse to yield to large doses of quinia. It proved to be a sympathetic fever connected with a local lesion of the gastro-intestinal mucous membrane. In acute cases the symptoms of gastric and hepatic disturbance may be very marked, as in the present instance; while in more subacute cases the irritation is more obscure, and yet keeps up irregular febrile symptoms, often of a quotidian type. In the case of this patient, finding that the evening exacerbation failed to yield to large doses of quinine, the treatment was stopped on the ninth day of the attack (the third day of treatment), and five grains each of the subnitrate of bismuth and the bicarbonate of soda were given every three hours; while at night a mild mercurial laxative, followed next morning by a small dose of Rochelle salts, was also administered. The diet allowed was very light. The case at once came under control. The temperature was reduced to 98½, and the gastric symptoms disappeared.

In the general treatment of such cases, if their malarial nature be suspected, it is well to begin with full doses of quinia. If, however, the gastro-hepatic symptoms are prominent, the quinine treatment should be postponed for twenty-four hours, and five to ten grains of blue-mass should be administered and followed by a saline. Then, when the liver and stomach have been well acted upon, begin to give quinia by the rectum, so as to avoid gastric irritation. Four suppositories of five grains each may be given at intervals of two or three hours. If the febrile action of irregular type is not subdued soon, we may suspect that it is maintained by the local irritation of the mucous membrane, and the case is to be regarded and treated as one of gastro-hepatic catarrhal fever. The diet should be restricted, and febrifuges and subacids given, and the skin sponged with cold water if the fever be severe.

GRAVES' DISEASE.

The patient was a woman of fifty-six years, who had her "change of life" two years ago. She was suffering from anxiety, disturbed cardiac action, extreme nervousness, uterine troubles, and exophthalmos, with enlargement of the thyroid gland.

The disease is most common in young women of a nervous type, though it occurs in males also. It may, indeed, be developed in any one subjected to influences which impair nutrition and disturb the nervous system. It is thus that, as in the present case, it may be met with in women about the menopause. The prominent symptoms are: (1) protrusion of the eyeballs, exophthalmos; (2) enlargement of the thyroid gland; and (3) disturbed cardiac action. To these are often added anæmia, and nervous and uterine disturbances. The degree to which these various elements exist varies in different cases. The exophthalmos and goitre may be exceedingly marked, or scarcely perceptible. The disturbance of the heart's action is generally functional and very marked, with an exceedingly rapid pulse, running from 120–150 in the minute, and sometimes, as in this case, a musical, systolic, blowing murmur, heard over the pulmonary arteries, and anæmic in its character. There is in such cases a morbid action of the sympathetic nerves, and a weakened state of the blood. In some instances extreme throbbing of the vessels of the neck, and perhaps a thyroid thrill, can be noticed.

The treatment of this disease is by good food, rest, sunlight, exercise, and complete release from cares. Among medicines the best are iron, arsenic, digitalis, bromide of potassium, and ergot.

LUMBAGO.

The patient, a young married woman, was confined five months ago. Two days after her confinement she complained of pain and stiffness in the lumbar region. During the week following her confinement her elbows and ankles were swollen, and she had an attack of acute articular rheumatism. These symptoms came on suddenly and apparently without any cause. The patient now has a slight systolic, mitral murmur, possibly functional, and complains of shortness of breath and dizziness. Stooping gives her great pain in the affected region, and she does not bend the lumbar spine at all in the act. Pressure upon the spinous and transverse processes of the lumbar vertebræ also causes great pain. The name lumbago is given to this condition. It is essentially understood to imply rheumatism of the lumbar muscles. Evidently, however, while in some cases the fibrous elements of the muscle are alone affected, in other instances there is also an inflammation of the sheath of the muscular nerves; and in still others of the periosteum of the bones adjacent. In some cases, also, the small joints between the vertebral processes may be involved, and even lead to anchylosis. In the present case it seems that, although the mass of erector spinal muscles is involved, there has also been an implication of the periosteum of some of the intervertebral joints.

The treatment in this case should be manipulation applied to the lumbar region of the spine, so as to restore mobility. To subdue the painful condition of the muscle, injections of $\frac{1}{80}$ of a grain of atropia and $\frac{1}{4}$ of a grain of morphia, well diluted, should be made well into the body of the muscle. [This is the usual treatment of local rheumatism at this hospital, and it has been followed in all cases with most gratifying results.] Great care must always be had in the administration of morphia and atropia to nursing women, as belladonna is the most powerful antigalactagogue known, and too large doses of morphia not unfrequently affect the child through its milk. As regards other methods of treatment, the local application of blisters, iodine, and croton oil, together with the internal administration of iodide of potassium, will often do good.

ULCER OF THE STOMACH.

A specimen of the stomach of a man who had just died of severe and repeated hæmatemesis was exhibited to the class, showing two ulcers of considerable size. One of these was found to have perforated the mucous and muscular layer. This complaint is very common in women, especially among the young. The causes are various and well known. In the instance under consideration the spleen was found to be unusually enlarged—probably the result of a previous attack of malarial fever—its fibrous elements being thickened and the malpighian corpuscles hypertrophied. The ulceration was evidently brought on by the turgescence of the blood-vessels of the stomach, produced by the obstruction of the splenic circulation.

The treatment of gastric ulcers is by astringents. Nitrate of silver, in the form of pills, should be given in full doses after meals. Among other remedies, the persalts of iron, the subnitrate of bismuth, and the sulphate of copper are useful. If there be much pain, opium, hydrocyanic acid, and chloroform may be administered. An exclusive milk diet is preferable. Beef-juice, gruel, and arrowroot can be taken with safety. All solid food must be avoided. At the time of hemorrhage, absolute rest must be insisted upon: pieces of cracked ice should be swallowed; Monsell's solution, tannic or gallic acid should be given internally; morphia may be given by the mouth and ergotina hypodermically, and all food must be administered by enemata for the time.

AN OBSCURE CASE.

A very obscure and interesting case. A well-grown girl of seventeen, with no known hereditary tendencies. The examination, made before the class, disclosed great exophthalmia, though the patient said that her eyes were naturally prominent; a very general anasarca, shown in œdema of the feet and legs below the knees, of the vulvæ, and of the abdomen between the genitals and the umbilicus. There was no tumor in the abdomen, and careful percussion failed to reveal any considerable amount of fluid in the peritoneal sac. The skin and connective tissue of the vulvæ and abdomen were extremely painful to the touch. Though seventeen years old, the girl had never menstruated, and there was no hair on the external genitals. Accompanying the œdema there was very marked turgescence of the veins all over the body, particularly those of the face and abdomen. Physical examination of the chest showed the signs of pulmonary congestion, with bronchial catarrh—namely, sonorous, sibilant, and crackling râles. The great increase in resonance over the back of the lungs indicated a decidedly emphysematous condition of the lower lobes. The sputa were white and frothy, and occasionally contained blood. There was no solidification of the lungs, and no dulness on percussion. The possibility of phthisis was precluded by the absence of the usual signs, and of night-sweats, and loss of flesh. The heart sounds were perfectly normal. The pulse but slightly increased in frequency. The tongue was heavily coated. The bowels regular, but the appetite very poor. The girl was never very strong, always suffering from shortness of breath, and

her nutrition has never been good. She has no work to do, sleeps well, and eats good food. She has had two attacks of dizziness within the past three weeks, during which, though she did not fall to the ground, her face became purple, she lost consciousness, and her hands were clenched. There was no jaundice. Her tonsils were hypertrophied, and she has suffered occasionally from difficulty in swallowing. There have been no symptoms of disturbed digestion. All the œdematous parts pit on pressure. On lying down there is great lividity of the face and enlargement of the veins. All these symptoms, together with a very racking cough, have developed within the past six months.

The first thought that comes in studying this case is that it is one of chronic disease of the kidneys. The bronchial symptoms, general anasarca, venous congestion, and epileptiform attacks are all suggestive of chronic nephritis. But a careful examination of the girl's urine has failed to reveal the presence of any albumen, and, according to her own statements, she never is obliged to rise at night to pass water, has no pain in her back, has never had difficulty in passing water, and has noticed no change of late in the quality, quantity, or color of her urine. A thorough microscopical examination of the urine has shown no tube casts, no unusual amount of epithelium, and only a slight increase in the normal number of uric acid crystals. The specific gravity of the urine was 1016, and the color normal.

[I will send, on a future occasion, the result reached after further study of the case, together with the treatment employed.]

Progress of Medical Science.

The Somatoscope.—Dr. V. Huter, of Marburg, has designed a new instrument, to which he has given the above name. It comprises a stethoscope, a percussion-hammer, and a pleximeter in one instrument, and the advantage claimed for it is that it does away with the necessity of carrying three separate instruments in the pocket. When complete, it resembles the ordinary monaural stethoscope, except that the head of the hammer projects from one side beneath the ear-piece. The ear-piece can be screwed out and used as a pleximeter, while the lower part of the stethoscope serves as handle for the hammer.

Jaborandi and Hoarseness. — Dr. Eyselein, of Blankenburg, recently administered 45 grs. of jaborandi to a lady who was suffering from hoarseness and pain in the neck due to a cold. The leaves were powdered, and a cupful of boiling water poured over them; after standing fifteen minutes, the decoction was sweetened and was administered at 8 P.M. After a few minutes, the patient experienced an agreeable sensation over the entire body, which was rapidly succeeded by strong, general pulsation, nausea, vomiting, fleeting pains in the abdomen, especially over the region of the bladder, and an outbreak of abundant perspiration. These symptoms were accompanied by great general discomfort and extreme prostration. The perspiration continued for about two hours, and the bed linen was soon soaked through. Three times during these two hours sudden chills set in, the body, face, and extremities becoming cold for a time. The perspiration was accompanied by a very profuse discharge of saliva; soon after they began, the hoarseness disappeared entirely and did not again return.

In consequence of the general lassitude the patient soon fell asleep, but the saliva continued for a long time to run out of the corner of the mouth. The perspiration did not involve the hairy parts of the head. On the next day, the patient complained of weakness and lassitude; the left submaxillary gland was somewhat enlarged and tender, the appetite poor, and the saliva thick.

This case shows the necessity of caution in the administration of large doses of jaborandi, although the dose was 15 grs. less than is ordinarily given to an adult at a single dose. The effect on the hoarseness was all that could be desired, but it was attained at the cost of very great discomfort.—*Allgem. Med. Central Zeitung*, March 21, 1877.

Hemorrhagic Malarial Fever.—In a paper published in the *Richmond and Louisville Medical Journal* for March, Prof. Joynes, of Richmond, retracts the opinion, formerly expressed by him, that the discoloration of the urine in this disease is due to the presence of bile pigment. Numerous observers in the Southern States have in late years found blood-corpuscles in much the larger proportion of the specimens of urine from this disease that were examined. In one case of the disease that came under his own observation Prof. Joynes found blood-corpuscles in the urine on microscopical examination, and the chemical tests yielded satisfactory proof of the presence of blood. In several specimens from two other cases, which were sent to him from a distance, he found no blood-corpuscles, but heat and nitric acid produced the dirty-brown coagulum of albumen and hæmatin; in all these specimens, however, the urine was ammoniacal, and it is a known fact that blood-corpuscles very rapidly disintegrate and disappear in this condition of the urine. In none of the specimens of urine examined by Prof. Joynes did nitric acid give any indications of the existence of bile pigment. Once in the field of the microscope he saw a body which presented the appearance of a convoluted knot of capillaries, as if one of the malpighian bodies had been exfoliated from the kidney during the intense congestion of the febrile paroxysm. Prof. Joseph Jones saw this extraordinary appearance in one of his cases.

Although the urine in hemorrhagic malarial fever undoubtedly contains blood, it does not follow that the red corpuscles hold the same proportion to the other constituents of the blood in the urine that they do in healthy blood, or even that any of them are necessarily present when albumen and hæmatin are demonstrably so. Many competent observers believe that in this fever, especially in the graver cases, either under the direct influence of the malarial poison, or under that of the biliary matters contaminating the blood, a disintegration or solution of the blood-discs takes place, whereby the hæmatin is set free in the circulation; it then finds an outlet through the kidneys, and on examining the urine, while much albumen and hæmatin may be present, but few or even no blood-discs may be found. This is analogous to what takes place in septic, pyæmic, and putrid fevers, and in some extreme cases of scurvy. In the disease under consideration hemorrhages from the stomach, bowels, and other organs are of frequent occurrence, and it is a common thing for blisters to fill with bloody serum.

Prof. Joynes does not deny that bile, or at least its coloring matter, is present in the urine of hemorrhagic malarial fever, but simply states that nitric acid failed to reveal its presence in the specimens examined by him. It would be strange indeed if it were not generally present in greater or less quantity, considering the ex-

treme intensity of the jaundice. This jaundice appears suddenly while the liver is pouring out bile in profusion, and no obstacle exists to its free passage into the alimentary canal, from which it is abundantly discharged by vomiting and often by purging. It is almost unquestionably of hæmatogenous origin, and due to the disintegration of the red corpuscles and the transformation of the freed coloring matter circulating in the blood into bile coloring matter.

On the Radical Treatment of Uterine Cancer.—Prof. Goodell, of the University of Pennsylvania, believes that it is not only often impossible but is clinically needless to distinguish *intra vitam* the various kinds of uterine cancer. He believes that cancer of the uterus is of all cancers the least prone to infect the system; its victims die not so much from specific systemic poisoning, and from transference to distant organs, as from septicæmia, from embolism, and from the exhaustion induced by pain, sleeplessness, and the bloody or serous fluxes. In cancer of the cervix the indications are either to eradicate the disease, or failing in this to check the excessive discharges, to correct the fœtor and to allay the pain, and thus to prolong life. To effect this he advises removal of the cervix either by the écraseur or galvanic cautery. When the entire cancerous mass is not removed by these means, the remaining outgrowths and the underlying infiltrated tissues must be dug out with the finger-nails, scraped off with Simon's spoons, or snipped off with scissors. The resulting deep and funnel-shaped cavity must next be cauterized with fuming nitric acid or the hot iron. This may be done either at the time of the operation or after an interval of a week or so. During the operation, if scraping be needful, the hemorrhage is usually quite free, but in Prof. Goodell's experience it has always yielded to an injection of one part of Monsel's solution to three of water, followed by a sponge tampon lightly packed into the funnel-shaped pit. After the operation there is sharp fever for four and twenty hours or more. On the third or fourth day the discharges sometimes become offensive, and continue so for several days. After the scraping process the stench is invariably overpowering and must be met by injections of a solution of permanganate of potash, and by large doses of quinine to guard against blood-poisoning.

In all his cases Prof. Goodell enforces sexual abstinence, and orders the patients iron and bichloride of mercury as a tonic, arsenic to repress the tendency to reproduction of the new growth, and ergot to diminish the supply of blood to the uterus. He has now operated on thirteen cases, in all of which life was lengthened and made bearable; in one instance, as he believes, saved for good. The hemorrhages were stayed, the putrid discharges checked, the pains allayed, and the appetite restored, and bed-ridden patients were enabled to get up and resume their household avocations. Even when the womb was fixed by the extension of the disease to parts beyond operative reach, much was gained by removing all of the cancer that could be reached. The complexion invariably cleared up after the operation, and this fact leads Prof. Goodell to think that the so-called cancerous cachexia is due not to a cancerous diathesis, but to absorption from a local cancerous deposit.

Injury to the peritoneum cannot always be avoided during the operation. Karl Braun, however, does not hesitate to include a portion of the peritoneum in order that the hot wire may pass through perfectly healthy tissue. He says he has repeatedly in this way opened into the peritoneal cavity without harm to the patients. In one case, while scraping with the finger nails, Prof. Goodell opened into Douglas's cul-de-sac. No vaginal injections were used, no untoward symptoms arose.—*Med. and Surg. Reporter*, March 10th.

Progressive Pernicious Anæmia Treated by Transfusion.—Mr. T. R. Glynn, of Liverpool, reports the following case: John F., age 42, engineer, admitted Nov. 15, 1876, into the Liverpool Royal Infirmary. He had always enjoyed excellent health until September, 1875, when he found that he was losing strength and becoming pale and thin; that his breath was short and his heart beat violently on any exertion. On admission he was greatly emaciated; his face was colorless, lips pale, feet and ankles œdematous; pulse soft, 90; respiration hurried, especially on exertion; temperature normal; urine normal in quantity; sp. gr. 1012, contained no albumen. Physical examination: splenic dulness somewhat increased; hepatic dulness normal; loud systolic murmur over base of heart and vessels in neck; impulse not displaced. On microscopical examination of the blood, the white corpuscles were found to be not increased in number; the red corpuscles were decidedly diminished in number, but regular in shape. The patient complained of great weakness, frontal headache, dizziness, impairment of vision and hearing, numbness of fingers, loss of appetite, etc. His condition rapidly became most serious in spite of energetic treatment. Bronchitis set in, and the cerebral symptoms pointed to the risk of sudden and fatal syncope. Under these circumstances transfusion was determined on as a last resort, and it was performed on Dec. 20th. The blood was conveyed from the vein of a healthy man directly to that of the patient by means of Aveling's instrument. The operation lasted about thirteen minutes, and between eighteen and twenty ounces were injected. As soon as the patient manifested uneasiness, the transfusion was stopped; he complained then of a sense of oppression about the chest, but in a little while became more comfortable. The operation was followed by a rise of the temperature, which reached its maximum (103° F.) on the next day, and also by an aggravation of the bronchitis. Ten days after the operation the patient was allowed to get up, and three weeks after it he began to take out-door exercise. He was subsequently sent to the Convalescent Hospital, where for some time he continued to improve. Then the old symptoms gradually returned, and he went home and died about two months after the transfusion. Mr. Glynn regrets that he did not return to the Infirmary, and that transfusion was not again practised.—*The Lancet*, March 31, 1877.

A New Journal.—The first number (January, 1877) of the *Commentario Clinico di Pisa* has just reached us. It is a monthly octavo of forty-eight pages, of which thirty-eight contain original matter, principally clinical, including an interesting case of catalepsy in a man, and a critical study of utero-ovarian amputation. It is edited by Drs. Bardozzi, Fedeli, and Nerozzini.

Ligature of External Iliac Artery.—Prof. James R. Wood, M.D., ligated the external iliac artery at Bellevue Hospital, May 16th. The patient was a negro, who had been cured of a popliteal aneurism six months before, and who since then had an aneurism developed high up on the femoral of the same side. The operation, which was the eighth of its kind performed by Dr. Wood, was done by Sir Astley Cooper's method.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE SCHOOL HEALTH BILL.

Senator Gerard's school health bill, which passed the Senate several weeks ago, has finally been reported to the Assembly by the appropriate committee. As it must before long be placed upon its final passage, we hope that the legislators will be prepared to vote understandingly. It is useless to disguise the fact that there has been and is still opposition to the measure. But coming as it does from the Board of Education, the animus can be reasonably well understood. A correspondent in one of the daily papers, speaking on the authority of a gentleman who is adverse to the bill, states that a free conference with the different school-trustees has resulted in a verdict of condemnation to sanitary supervision, that the schools are already well inspected, that the bill is not only unnecessary, but, if passed, its operation will be a positive nuisance, by an interference with an already well-established and efficient system. This is so absurdly false in every particular that it would be unworthy of notice, except that it evidently receives the tacit and willing sanction of the Board of Education.

It is hardly necessary to repeat what has so often been said before in regard to the want of sanitary inspection in our schools. The officer who is now detailed for that purpose is mainly occupied in examining classes in the grammar departments, and even what little insight he may gain by these means into the sanitary condition of the scholars is entirely lost in the primary departments, which are not visited at all. We speak from what we know. The facts upon which such statements are based have been repeatedly presented to the public, and have thus far never been questioned. If the Board of Education desires to give itself any particular credit for what has thus far been done in the way of improving ventilation, preventing crowding, reducing the danger of propagating contagious disease, it can make but a poor show. An inspection to-day of any of the schools, especially in the primary departments, will still show to a greater or less extent the same abuses of sanitary regulations which existed years ago. Even in the newly constructed school-houses no advantages have been taken of previous experience of defects. The ventilating apparatus is as useless as ever; water-closets are in close proximity to class-rooms, and not infrequently the noxious gases produce actual sickness during recitations. Notwithstanding the observations of Agnew, Loring, and others, that sufficient and properly managed light is necessary for the preservation of the sight, no alterations have been made to meet the given requirements. The abominable farce of calisthenics is still carried on in the primary departments, the hours of confinement are still the same, and contagious diseases are still spread without any apparent effort to check them. In the face of these facts, we are informed, on the authority of such as pretend to know what is required in our public schools, that there is no necessity for any change, in fact that any attempt in that direction would be decidedly mischievous. We do not pretend to say that sanitary inspection will accomplish everything, but we believe that the principle has been strongly enough advocated by the medical profession to at least merit a trial, the Board of Education to the contrary notwithstanding. We hope the bill will be freely discussed. The more our legislators ascertain the facts in the case, the better prepared will they be to vote. The arguments in favor of the measure are so numerous, that all serious opposition to it gains its strength only by studied misrepresentation.

Again we repeat, in behalf of the medical profession, whose good opinion on this subject is a unit, that we hope the bill will pass.

STATE BOARDS OF EXAMINERS AND MEDICAL REGISTRATION.

It seems now that we are to see a new effort made by the civil and medical authorities of the State jointly endeavoring to regulate the practice of medicine within its territorial limits. We have at various times maintained that each State should exercise supervision over the granting of certificates or licenses for practice through its regularly constituted Medical Society, which should have in charge the examination of candidates for their degrees or licenses. We have repeatedly insisted that the colleges are not in a position to exercise this power, as, according to their present organization they are not interested in maintaining as high a standard of qualifications for practitioners as the public demand.

We are glad to see that good examples are set us in the West as well as in the East. The progressive State

of California evidently appreciates the desirable end to be reached, and is moving towards it with commendable vigor.

An act was passed last year by the Legislature directing each incorporated medical society to appoint a Board of Examiners to inspect diplomas and to issue licenses after examination to all practitioners of medicine who shall have shown themselves duly qualified. As the act includes "each State Medical Society incorporated," it is doubtless meant to embrace in its provisions any regularly constituted medical bodies, though they may be Homœopaths or Eclectics, and perhaps this is what we have to expect, for, according to the average legislative mind, they all have about the same right to recognition and protection as ourselves. A careful reading of the several clauses of the act shows that they have been somewhat loosely framed, and might be desirably amended in some particulars, and yet the State Medical Society deserves high praise for its promptitude and energy in carrying out the scheme, and so placing it fairly before the profession.

We are of course sorry to see that an applicant having a fraudulent diploma or one unlawfully obtained shall merely pay the nominal fee of *twenty dollars*, and that the verification of the diplomas shall consist merely in the affidavit of the holder and applicant that he is the lawful possessor of the same.

It would appear that this special leniency was designed to protect some one, and gives sad evidence of the slight amount of criminality which is thought to attach to the holders and owners of fraudulent papers. However, we see that from the first of the present year matters have all been changed, and that any one "filing or attempting to file as his own the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony."

The sale and purchase of diplomas, which we take it from a recent advertisement in one of our metropolitan journals still goes on, will receive something of a check, and the law will mete out proper punishment to those who offer them to others as official certificates.

The act further provides that from the same date no certificates shall be granted except to holders of "diplomas or licenses from legally chartered medical institutions in good standing."

Then as now all the names of practising physicians and surgeons shall be registered in the office of the County Clerk, and shall be open to inspection during business hours. Itinerant venders and the like are to pay a license of one hundred dollars a month.

The Board of Examiners of the State Society may properly be congratulated on the good work they have done, and Dr. Grover, their Secretary, in particular, for the pains and expense he has personally incurred in furnishing the profession with a full list of those whose qualifications the Board has duly attested. The catalogue of this year, just issued, contains over a thousand names, with residence, date of diploma, name of institution, and number of the certificate issued by the Board.

Should every State Medical Society be empowered by the Legislature to have an Examining Board armed with similar powers, we should make an important step towards the purification of our ranks.

REFORM IN THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA.

THE recent changes in the plan of instruction in the University of Pennsylvania are sufficiently radical to invite comment. As will be seen by a notice in our news column, this institution proposes to lengthen its course of instruction, to have a regular gradation of studies, to have professorships which are independent of students, and also preliminary and stated examinations which shall be impartially conducted by a board specially appointed for such purpose. The success of the plan necessarily depends in a great measure upon the ability on the part of the trustees to guarantee a fixed salary for each professor, entirely independent of the number of students in attendance. As the trustees have already settled this matter the success of the undertaking is full of promise. Another example will now be afforded, not only for studying the effects of the endowment plan from a reasonable standpoint, but of becoming practically acquainted with the benefits of preliminary, stated, and independent examinations. We have no doubt that the University has adopted the right course, and its friends should be congratulated on account of its ability to make all its promises good.

Correspondence.

ANTIQUITY OF TARSO-METATARSAL AMPUTATION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I send you a record of early American surgery which may interest your readers. It is an extract from the "History of Carolina, London, 1809, by John Lawson, Surveyor-Gen. of No. Ca.," who was finally murdered by the Tuscaroras living in that State.

When journeying through South-western North Carolina to the Appomattox, Va., and was at the Upper Keyawee town on the Yadkin, he writes in his journal, page 53, Feb. 5, 1701: "The Indian that put us in our path had been a prisoner amongst the Sinnagers (Senecas), but had outrun them, although they had cut his toes and half his feet away, which is a practice common with them (p. 198,) when they take a slave and intend to keep him to work in their fields. They first raise the skin, then cut away half, and so wrap the skin over the stump and make a present cure of the wounds. This commonly disables them from making their escape—they being not so good travellers as before, and the impression of their half-

feet making it easy to trace them. However, this fellow was got clear of them, but had little heart to go far from home and carry'd always a case of pistols in his girdle, besides a cutlass and a fuzee."

Malgaigne, in his "Operative Surgery," 1842, p. 254, writes of the "*Amputation of the entire metatarsus*" "proposed in 1820—performed by Percy, 1789—improved by Hey, 1797, and by Villerme; and lastly by Lisfranc, whose proceeding is almost the only one now used."

A medical friend thinks this Indian practice of 1700 may have become known to the surgeons of the time, and may have attracted attention, and may be another but forgotten instance of the borrowing by the European surgeons of ideas from the New World without giving due credit. It is obviously the earliest record of this operation.

That such a device should have originated with and been successfully practised by our aboriginal savages is quite wonderful.

O. P. HUBBARD.

NEW YORK, May 8, 1877.

MEDICAL ADVERTISING.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—A young man called to see me recently, and informed me that his business was to print bills for hotels, such as are posted on the doors of the rooms, and that furnish information for the benefit of the guests. He solicited me, on the recommendation of a well-known hotel proprietor, to give him my professional card that he might append it to certain bills that he was preparing. I refused for the alleged reason that it is a method of public advertising, and a violation of the code of ethics. To refute this he showed me several bills that he carried as specimens, such as are displayed at well-frequented hotels in New York and elsewhere, that contained the names of certain eminent physicians. Is not this at variance with the letter and spirit of the code of medical ethics? Does it not seem paradoxical for professors in colleges to descant eloquently on the dignity of the profession, and the observances of ethics, when they resort to public "advertisements," or "handbills," "or to other similar acts that are the ordinary practices of empirics"? There are others than myself that would like to be set right in this matter, and you will oblige a number of your readers if you will give the subject your intelligent consideration in the columns of the RECORD.

Very respectfully yours,

W. W. HEWLETT, M.D.

BABYLON, L. I., April 30, 1877.

The above is a clear violation of the Code.—ED.

PHOSPHORUS ASSIMILATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your issue April 7th ult., Dr. Samuel Percy makes allusion to my paper published in your journal January 27th last. He states that the conclusion I arrive at, that "phosphorus must be given with (or after) food, as otherwise it is found to attack mucous surfaces," is not in accordance with numerous experiments he has performed. Whether it is in accord with the Doctor's experiments or not, it is certainly in accord with the *practice* of nearly every medical man who uses free phosphorus, its exhibition after meals being rendered necessary by the disastrous irritant effects following its use upon an empty stomach. This is a matter so generally conceded by physicians as the result of their experience, that I am surprised that the Doctor should dispute it. I think physicians who are in the habit of prescribing phosphorus will acknowledge that they have found it necessary to administer it after meals, to prevent undue irritant action.

Dr. Percy denies that the irritant action of phosphorus is due to its oxidation.

Phosphorus exposed to air takes fire. Why?

Nobody disputes that it is because of its rapid absorption of oxygen.

Held in the hand it burns the skin. Why?

Undoubtedly by taking its oxygen from the cuticle, thus disintegrating and destroying it. If it will burn the hand it will also burn the delicate mucous surface of the stomach, if in contact with it.

Upon what other hypothesis will the Doctor explain the occurrence of dyspepsia and gastric irritability following its use? Dr. Percy is led to the belief that phosphorus is absorbed in its pure state. This may be the case, though I find it very difficult to understand how it is possible, as I know of no solvent for phosphorus in the stomach. Administered in solution, it must be almost immediately precipitated upon reaching the stomach. The natural stomach juices are not solvents for it, and unless in solution it cannot be absorbed until after digestion, which would involve oxidation.

Dr. Percy states himself that when "phosphorus has combined with one atom of oxygen, it is no longer irritant." I made this remark in my previous paper, when I also assumed that the phosphorous oxide thus formed united with bases found in the stomach, and being soluble were in this state absorbed.

I have not yet had an opportunity to consult the authorities to whom Dr. Percy refers me, regarding the "improved method of analysis" by which hypophosphites have been, as alleged, found in vegetable tissue.

Dr. Percy next indorses and quotes from my paper: "All 'phosphoid' compounds become converted into phosphate, in which condition they are eliminated," and then he adds, which language and thought are not mine, "and must again go through organization or vitalizing in plant life before again adapted to nourish and support animals." I do not consider *phosphates* suited to the purpose of supplying the system with phosphorus, but I deny that the phosphate derived from vegetable sources in any way differs from the same phosphate obtained elsewhere. If anything can be called infallible in this world, it is most certainly the law which governs chemical combination. Certain elements united in certain proportion produce certain compounds, which compounds, wherever found, have the same composition.

As to Dr. Percy's theory about vitalization, I do not agree with him. It seems to me like wandering from the logical consideration of chemical, as applied to physiological action, into the realms of metaphysics.

Admitting that hypophosphites or allied substances may exist in vegetable germs, etc., I cannot see why they should be superior, *when isolated*, to the same substances artificially prepared. Vitality exists only in certain organized structures, and where these structures are destroyed the "*vitality*" is also. We can no more take this vitality and combine it with other ingredients, bottle it up, for the benefit of suffering humanity, than we can breathe life into the dead.

I have never seen the hypophosphites change into phosphate when in solution in syrup, and I have prepared thousands of pounds. The syrup of hypophos-

phate of lime, if neutral, would instantly show conversion into phosphate by being thrown out of solution, an acid vehicle being essential for its solution. The physicians and pharmacists of New York have had ample opportunity to judge of these syrups, they having been very largely used here for over a year, being now obtainable and regularly kept by nearly every pharmacist of this city. If the syrup of hypophosphite of lime is not converted into phosphate by standing or age, neither are the corresponding syrups of soda, iron, or potassa. Syrups prepared from the ordinary *commercial hypophosphites do* precipitate, but the precipitate is not phosphate—it is carbonate, into which the hydrate, an impurity I have never found absent in commercial specimens of hypophosphites, is converted by absorption of carbonic acid.

The very desirable results attained by Dr. Churchill, which had been nowhere equalled, were obtained by the use of pure and neutral hypophosphites. So much stress does the Doctor lay upon this, that he directs the salts to be given separately or alternately, from the fear that one salt might interfere with or modify the action of another. The use of the syrups prepared by me in strict conformity with Churchill's views has been followed by like results in this city and vicinity, physicians frequently remarking that they have never before seen such prompt action from these salts.

The glaring error of the present time is the complex character of our remedies, and although combinations are frequently required, they should only be made after a thorough study of the peculiar therapeutic action of each, and instances where half a dozen different remedies can be advantageously combined are very rare indeed. This is one objection I make to Dr. Percy's complex formula.

Respectfully yours,

ROBERT W. GARDNER.

BLOOMFIELD, N. J.

CROTON CHLORAL IN DENTISTRY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The specific effect of croton chloral hydrate upon the *fifth* pair in neuralgia suggested its use as an internal and local anæsthetic in toothache. I have derived prompt relief from its use in 5–10 grain doses in the toothache of dyspepsia and pregnancy, and in those aggravating cases which occur in rheumatic and neuralgic patients. Failing to relieve by the ordinary remedies a severe attack of toothache, due to dental caries, I found that a mixture of equal parts of crystallized carbolic acid, croton chloral hydrate and solid Japanese oil of peppermint, promptly removed the pain and obtunded all sensitiveness during the process of filling. I suggested the use of this compound to my dentist, who assures me that he has found it to be the best "obtunder" he has used for deadening the pain of sensitive dentine, and for removing soreness of the gums, which sometimes results from filing and other operations upon the teeth. In toothache, after the mouth has been washed out with a solution of bicarbonate of soda in warm water, and the cavity of the tooth dried with a pledget of cotton-wool, a small piece of the latter should be soaked in the above mixture—gently pressed to remove excess of moisture—introduced into the cavity, and covered with a small piece of dry cotton-wool; or the latter may be first dipped into styptic-colloid or collodion, and then lightly pressed home. In filling teeth, when it is not necessary nor expedient to destroy the pulp by arsenic or other escharotic, nearly all sensitiveness may be allayed, during the preparation of the cavity, by the following plan: Arm a fine brooch with a small ball of cotton-wool, dip it into the mixture (removing any superfluous material by a little pressure), introduce it into the dental cavity, and retain in position by the introduction of a second piece of wool. In the course of five or ten minutes the cotton-wool may be removed, and the excavation of the cavity may be proceeded with until it again becomes sensitive, when the application should be renewed, and repeated as often as it may be necessary until the cavity is ready for the plug; a result which may be accomplished with little or no pain, and without injury or destruction of the nerve.

C. J. CLEBORNE, M.D.

NAVAL HOSPITAL, PORTSMOUTH, N. H.

THE PHARMACOPŒIA AND THE DISPENSATORY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The causes which have led Dr. Squibb* to broach the subject of a change which, if rendered operative, would involve some radical departures from the methods heretofore pursued in the production of the Pharmacopœia, are briefly as follows: the absence of a number of the hardest and most conscientious workers, by reasons of death and the infirmities of age, from the "Committee of Revision," who have in the past carried the work forward with such signal ability, and, particularly, the non-availability of Drs. Geo. B. Wood and Franklin Bache—those two great master-minds who have for nearly half a century held the widely diversified elements of American medicine in a compact whole—for further work in this direction; furthermore, the too infrequent editions of the Pharmacopœia, and the irregular issues of its elaborate commentary, the U. S. Dispensatory, having culminated, as may have been expected, in the failure of the latest editions of these two works to properly correspond with each other, the Pharmacopœia is "left to stand alone, and with the influence of the Dispensatory not for, but against it." The inherent and fully-recognized defects—that is, fully recognized by those "whose personal interests would not be impaired by the proposed change"—of the present system, not being proof against the repetition of this latter objectionable feature (not to mention others), the value of one or the other, or both, of these works is weakened, as they are expected and understood to be in perfect accord with, and to supplement each other. "At the time of the last revision (of the Pharmacopœia) Dr. Bache was dead, and Dr. Wood so infirm in health that his services were not useful, but were rather obstructive in the committee, and have continued to be so unserviceable to the Pharmacopœia interests, that now, while his Dispensatory still overshadows the Pharmacopœia, it does not embrace it, and has not been revised to meet the wants of the present plan of revision; whilst by allowing his publishers to change the date on the title-page of the Dispensatory, it appears to post-date the last revision of the Pharmacopœia, which it does not contain or comment upon, while it still, in a large measure, takes its place," and "the thirteenth edition of the Dispensatory remains year after year unrevised, until it has become simply a book of reference for the past, and a blind to those who go to it for the progress of modern knowledge." Some systematic arrangement must clearly be adopted

* The American Medical Association and the Pharmacopœia of the United States of America, by E. R. Squibb, M.D., Brooklyn, N. Y.

in the near future, which will keep the works (if both be continued in their present relations) abreast of each other, or else institute, as Dr. Squibb proposes, a plan which will in effect destroy the peculiar monopoly which the Dispensatory has enjoyed, by constructing a Pharmacopœia of so enlarged a scope that the Dispensatory will be superfluous. Some such course is rendered imperative if the Pharmacopœia is to command any general acceptance, or to be in deed and in fact the "national standard."

The U. S Pharmacopœia, as is well known, is and has been since 1820 in charge of the "National Convention for Revising the Pharmacopœia," a body being nominally composed of delegates from the several State Medical Societies and Medical Colleges of the country, and also from pharmaceutical institutions, but in reality representing but a small minority of these organizations, and consequently but a small minority of the profession, as the calls issued for the decennial meetings of this convention have never been responded to in representative numbers. This National Convention, having decided upon all the general principles of the Pharmacopœia, and ordered its general scope, and plan, and methods, it appoints a "Committee of Final Revision and Publication" to carry out these general principles and plan in the details of the revision, and gives this committee entire charge of the Pharmacopœia until the next decennial period.

The work thus appearing but once every ten years, a period intervenes between each edition which is, and has been for several decades, notoriously too long, as these infrequent issues cannot do justice to the important and progressive interest involved. After the second revision of the Pharmacopœia, two members of the Committee of Revision—Drs. Wood and Bache—perceiving that an explanatory commentary upon the Pharmacopœia, which would include materia medica and pharmacy, and be more frequently issued, would be of advantage to the profession, established that grand monument of medical and pharmaceutical lore, the U. S. Dispensatory, which has probably been the most successful medical book of the age, in its circulation and influence far surpassing the Pharmacopœia. As a former writer remarks: "In order to insure the permanence and authority of the U. S. Pharmacopœia, and with no idea of the pecuniary success which it has achieved, the U. S. Dispensatory was published by its authors, and American pharmacy, to the astonishment of many, leaped at once, as it were, into the arena fully armed, and prepared to maintain the foremost rank, which it has ever since held." The Dispensatory now, however, being deprived of the services of its able authors, and the fears being well grounded that it will degenerate into a mere commercial enterprise, its managers or editors caring more for the "clinking of the guinea" than for its value scientifically (if it is turned over to the "heir-apparent," a verbose and mediocre scissors-and-paste compilation may confidently be expected). The profession must look in another direction for a representative Dispensatory, or take the proper steps to render the present one such.

The Pharmacopœia, which is supposed to be the national standard, being superseded by, and subordinated to, the private book of two members of the Committee of Revision, and the last (thirteenth) edition of the Dispensatory not being in accord with the Pharmacopœia of 1873, hence not being a commentary upon it, the questions arise, How can a Pharmacopœia be obtained that shall be a national standard in fact; that shall be issued with sufficient frequency to keep the profession *au courant* with therapeutic progress? that shall not conflict with the Dispensatory; and, further, by whom should the work be issued?

Since the organization of the American Medical Association the profession of this country has been largely, if not fully, represented at its sessions, which are held annually. This extensive organization embraces and practically absorbs that portion of the profession which is represented in the National Convention for Revising the Pharmacopœia, and, as the greater includes the less, the American Medical Association, in virtue of the fact that it, alone, is truly representative, should certainly be the body empowered to issue the Pharmacopœia, which is one of the most important of the general interests of the Association.

The gist of Dr. Squibb's proposition is that the American Medical Association, the only organization which represents the whole profession of the nation, assume charge of the Pharmacopœia, control and issue it, and that the present National Convention for Revising the Pharmacopœia be abolished and superseded by a sub-organization or committee, to be called "The Pharmacopœial Council of the American Medical Association," which council is to take charge of the revision and publication of the Pharmacopœia; that the Dispensatory be ignored, but the Pharmacopœia be so augmented as to be a substitute for the Pharmacopœia and Dispensatory both; in other words, that the work thus issued be a combined Pharmacopœia and Dispensatory.

Just here the difficulty will hinge, no doubt, and the matter be discussed *pro* and *con* with much warmth by the respective partisans, who will marshal their forces in battle array at this juncture. The champions of the present system (is it a system?) may argue, quite plausibly, that the Pharmacopœia and the Dispensatory, mutually dependent upon each other, yet each filling its own proper field, have travelled along together for so many years, and have met the wants and requirements of two or three generations of physicians and pharmacists in such an acceptable manner, that they will be loth to have a system that has stood the test of long and successful experience substituted by one that is admittedly experimental; and that the conjoined work, representing Pharmacopœia and Dispensatory, would be too voluminous and minute on many points for a Pharmacopœia, and, at the same time, too condensed and restricted in its scope for a Dispensatory.

To obviate these and similar objections, which will be urged in an exaggerated manner, therefore, instead of instituting, at this time, such an abrupt and sweeping change as Dr. Squibb's plan, in its entirety, would necessitate, a modification of the plan, which would not ignore a Dispensatory, would, it is believed, remedy the evils complained of in an equally satisfactory manner, and secure, through the value of the work (Dispensatory) commercially, the additional advantage of enabling the Association to adequately pay for the labors of the council in revising and publishing, which labor has heretofore been done gratuitously; for if a consolidated Pharmacopœia and Dispensatory, as proposed, be issued by the Association, and the Dispensatory of Wood and Bache be still continued and maintain its established wide circulation (it does not appear likely to be withdrawn), the chief evil would not be remedied, as a really national standard would be as far off as ever, the Association's work being, to a large extent, unable to displace the work of Wood and Bache.

That the American Medical Association is the proper

custodian of the Pharmacopœia of the United States can hardly be denied; that this representative body is, also, the proper custodian of a Dispensatory of the United States, is, we take it, equally undeniable. At the present time the United States is provided with a Dispensatory of great excellence and of universal reference, a work lacking but one essential qualification—that of being the authorized utterance of the American profession through the American Medical Association. This latter may be said with regard to the Pharmacopœia. Now, we think an arrangement should be consummated, if it can be done advantageously, by which the ownership and management of the present Dispensatory, as well as of the Pharmacopœia, would become vested in the American Medical Association; if the overtures in this direction meet not with success, then, a new Dispensatory to be constructed forthwith. The attempt of Dr. Wood to create the impression that it would be a well-nigh impossible task to establish a new Dispensatory "having any chance to displace the old," is simply buncombe. By the way, Professors Stillé and Maisch have in preparation, and will shortly issue, a new Dispensatory, to be styled "The National Dispensatory," which, judging from the distinguished abilities of these gentlemen, will be a formidable rival to the present one, and will further serve to illustrate Dr. Squibb's argument for the necessity of centralization into one national standard. There is nothing but the unutual submissiveness of the profession in reference to some artificial and arbitrary "standard," to prevent a host of good, bad, and indifferent Pharmacopœias and Dispensatories from clamoring for their patronage, each one, of course, claiming to be *the* representative work.

The modification that may be suggested is, that the American Medical Association assume control of both the Pharmacopœia and the Dispensatory, and that both works be placed in charge of one and the same sub-organization, or council, or committee of the Association, said council to see to it that they are issued regularly and *simultaneously*, at more frequent intervals than formerly—say every five years. By this arrangement a degree of uniformity would be attained, which has, in the past, been entirely lacking, and which would remove, in great part, the causes for the unfavorable criticisms to which the works have been subjected.

In regard to the committee or council of revision and publication, care should be taken that the mistake be not made of having this committee too small, as this fault would possibly be taken advantage of by some one or two members in monopolizing the time in ventilating and urging their own peculiar crotchets, to the exclusion of better material. The council should be sufficiently and prudently large, and should be selected with the most extreme care and caution. Only men of acknowledged ability in this field of labor, and whose right to do this kind of work is unquestioned, would be available. A council which should contain such representative workers as Drs. Edward R. Squibb, William A. Hammond, Edward H. Clarke, N. S. Davis, Alfred Stillé, John B. Biddle, H. C. Wood, H. I. Bowditch, among its members, would, in its very composition, be an assurance that the requisite duties would be thoroughly and properly performed.

With the exception of the points herein noted, or rather, with the modifications herein noted, which are considered judicious by others beside the writer, the plan devised by Dr. Squibb is, without doubt, a close approximation to the end desired. Having been for many years an enthusiastic and thorough worker in this department, Dr. Squibb is specially qualified to institute any desired improvements in this direction, and his suggestions will carry great weight with them. As the subject is the special order of business for ten o'clock of the second day of the approaching meeting of the American Medical Association, it should, in the meantime, be carefully thought over, particularly by those members of the section in which the matter will be brought up for action.

In the numbers of the Philadelphia *Medical Times* for Nov. 15, 1870, and Jan. 2, 1871, the subject of the present status and future prospects of the Pharmacopœia is ably set forth, editorially. This writer is of opinion that the Pharmacopœia should be governmental in its origin, and says: "We think the time has nearly, if not fully, come when Congress should be asked to give legal authority to our national standard. Such law need not encroach or in any way interfere with the commercial rights of any. It would be sufficient, we think, for it to consist of two parts: the one giving legal sanction to the revisory convention and its committees as at present appointed and governed; the other requiring of pharmaceutists that when any preparation be called for under the officinal name, it should be prepared in accordance with the officinal standard. There is such reasonableness in this that we think Congress would readily pass a moderate law, were it memorialized by the various medical societies and colleges throughout the land;" and, in closing, says: "To call attention to this matter, to excite, if possible, discussion in the medical journals, so that at last action may be taken by some body or bodies, is the object of the present editorial. If it fail in doing so, it will be but bread cast upon the waters; and, although neither a prophet nor the son of a prophet, we fear lest the day may come when, by very confusion and vexation, the profession will be forced to look into the subject seriously, and to attempt a reformation, now easy, but which then will be a veritable cleansing of Augean stables."

The subject is one that merits careful study, and physicians should be urged to agitate the matter from their various standpoints, through the medical journals. By thus being advised of the views of the profession at large concerning it, the section would be likely to arrive at a satisfactory solution of the problem, at the meeting in Chicago.

WILLIAM N. BAYNTON, M.D.

COLUMBIA, PENN., May, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 6 to May 12, 1877.

EDWARDS, L. A., Surgeon. Leave of absence or surgeon's certificate of disability further extended six months. S. O. 101, A. G. O., May 10, 1877.

DE WITT, C., Asst. Surgeon. Granted leave of absence for one month and twelve days. S. O. 98, A. G. O., May 7, 1877.

KING, WM. H., Asst. Surgeon. Assigned to duty at Cheyenne Agency, D. T. S. O. 55, Dept. of Dakota, May 3, 1877.

ANDREWS, W. C. C., Asst. Surgeon. Drowned near Fort Stevens, Oregon, April 19, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending May 12, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
May 5.....	0	5	110	1	26	33	3
" 12.....	0	12	77	2	26	38	2

DR. H. H. GREGORY.—IN MEMORIAM.—At a regular meeting of the Harlem Medical Association, held at their rooms on the 10th inst., the following preamble and resolutions were unanimously adopted:

Whereas, It has pleased an all-wise Providence to remove from the sphere of his usefulness our well-beloved associate, Dr. Harvey H. Gregory, and whereas, while we bow in humble submission to the Divine decree, we desire the unavailing consolation of a tribute to his memory, therefore be it

Resolved, That in our deceased coworker we have always found a zealous promoter of the best interests of our profession, a judicious counsellor, an enthusiastic friend, and consistent advocate of harmony in our midst.

Resolved, That to Dr. Gregory this Association owes its organization, and much of its usefulness; that it has profited by his practical suggestions and honest endeavors to stimulate the zeal of its members.

Resolved, That the medical profession, especially of this locality, remember with pride his magnanimous record, his cheerful self-sacrifice, his unswerving integrity, and his broad humanity.

Resolved, That with unfeigned sympathy for the bereavement of that family circle, around which his best affections clustered, we offer this simple memorial, and with it the assurance that though he fell at his post with scarcely a warning, and in the prime of his manhood, his career was not without honor, nor his mission without fruit.

Resolved, That a copy of these resolutions be presented to the family of our deceased associate, and be also published in the medical journals of this city.

JOHN SHRADY, M.D.,
JOHN B. CAMPBELL, M.D.,
HENRY T. PEIRCE, M.D.,
Committee.

—At a meeting of the Yorkville Medical Association, held May 8, 1877, the following preamble and resolutions were adopted:

Inasmuch as death has snddenly removed from our midst our highly esteemed and much beloved brother, H. H. Gregory, M.D., while in the prime of life, apparently in the vigor of perfect health, in the crowning success of his cherished profession, in the unfeigned love of a large and rapidly increasing circle of friends, in the exalted appreciation of his patients, and in the unsullied respect and confidence of his church, therefore be it

Resolved, That we have lost one whose presence in memory we shall ever be prond to recall as an active and zealous member of this Association, and an honor to its medical status, and an example to its associates of pure friendship, noble generosity, and true manliness.

Resolved, That the medical profession at large have sustained in his death the loss of one whose qualities may be feebly grouped as the working, sympathizing, skilful, and gentlemanly physician.

Resolved, That the community in which he immediately moved have reason to bow in humble sorrow at the loss of a noble and exemplary citizen, a faithful friend, a respected physician, an ornament to the church, and a fit example of morality.

Resolved, That we deeply sympathize with the grief-stricken family of our deceased friend, and assure them of the sincere fellow-feeling of all who knew of their great affliction.

Resolved, That in his sudden and unexpected death we deeply realize the shortness and uncertainty of life, and would learn afresh the lesson that we, like him, should so live that we may not be afraid to die.

Resolved, That a copy of these resolutions be sent to the family of the deceased and also to the medical periodicals of this city for publication.

W. H. STUDLEY, M.D.,
J. R. MACGREGOR, M.D.,
F. A. THOMAS, M.D.,
Committee.

METRIC SYSTEM.—The *Boston Congregationalist* opposes the adoption of the metric system, because it does not want to have the revised version of the New Testament to read: "Neither do men light a candle and put it under a *hectoliter*."

"OPIUM ANTIDOTES."—Dr. J. B. Mattison, of Brooklyn, writes: "Your item in last week's issue, relative to 'opium antidotes,' prompts me to say that the analysis of the Collins nostrum revealed, per hundred parts, glycerine 66.89, water 28.66, morphia 4.45, the proportion of morphine amounting to 25½ *grs. per ounce* of the mixture, of which a teaspoonful was to be taken four times daily. The specimen was furnished me by a gentleman—an author—addicted to morphia, who had expended hundreds of dollars and months of time in a fruitless effort at cure.

"The Drollinger compound is essentially the same, for reasons at once appreciable, and all the other reputed 'antidotes' contain opium in more or less abundance, despite the false assertions of their makers to the contrary.

"An eminent gentleman, who has had the most extensive professional experience on record among inebriates, writes: 'I must thank you for the exposé of this opium cure *swindle*, for such I know it to be. You have done the cause of true reform a noble service.'"

REFORM IN THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA.—At the recent meetings of the trustees of the University, the following important changes have been instituted in the course and curriculum of the Medical School.

The European system has been adopted *in toto*. The course has been lengthened, attendance being required of the student upon three courses of lectures of five months each. There is to be an examination for admission, and examinations at the end of every year (of five months). The order of studies is to be graded. The first year devoted to botany and chemistry, and work in the chemical laboratory. Anatomy, physiology, and materia medica are to fill the second

year. The third year is to be entirely given up to therapeutics, physical diagnosis, surgery and obstetrics. The classes are to be reduced in size; the number of men in a class not to exceed sixty. A fixed salary of $3,000 is to be paid each of the professors by the board of trustees. The determination is to offer the most complete course of medical instruction with the smallest increase in the cost of fees. Though the endowment of the medical chairs is looked forward to by the trustees as a matter of the very near future, it will not have any effect upon the regular payment of fees. The fees in future are to be paid to the treasurer of the board of trustees, and not to the professors. The examinations at the end of each year and those for a degree are to be passed before a board of seven, appointed from the whole faculty, and not by separate professors, as hitherto. The good work in the way of private instruction hitherto done by the "Quiz" Associations will not be interfered with by the new order of things. All students who desire their additional aid will have the same facilities as heretofore. The matriculates of the years of 1875 and 1876 will not be affected by the new order of things, unless at their expressed desire.

The money already subscribed towards a full endowment fund is considerable enough to encourage the trustees in their efforts towards reform, and is continually increasing. The clinical professors are in future to rank with the regular medical faculty. They are Prof. Wm. Pepper, of Clinical Medicine; Prof. James Tyson, of Histology and Morbid Anatomy; Prof. Wm. Goodell, of Diseases of Women and Children and Clinical Obstetrics, and Prof. ————, of Clinical Surgery. The winter term of lectures is to extend over the months of October, November, December, January, and February, as hitherto. The spring course begins on March 20th, and lasts till the middle of June. It includes lectures by the old auxiliary faculty on botany, zoology, geology, hygiene, and medical jurisprudence, delivered during the afternoons. The new faculty appointed to lecture during the mornings of the spring course comprises Drs. Lenox Hodge, on Regional Anatomy; Henry Chapman, on Experimental Physiology; Roland Curtin, on Physical Diagnosis; Louis Starr, on Pharmacy; Henry Simes, on Histology; Elliot Richardson, on Practical Obstetrics; Charles Hunter, on Minor Surgery; Daniel Bray, on Operative Obstetrics; DeForest Willard, on Orthopædic Surgery; Charles Risley, on Ophthalmoscopy; J. Wm. White, on Venereal Diseases; Guitéras, on Symptomatology; C. K. Mills, on Electrical Therapeutics; and Shakespeare, on the Eye. The regular matriculates attend this course upon the payment of a matriculation fee of $5; others upon the payment of $30 for the course ticket.

The immediate effect of these so radical changes will be to *reduce the size of the classes* at the University Medical School, but to *raise the average standard of ability and greatly enhance the value of the diploma.*

The late resignations of Dr. Robert Rogers from the Chair of Chemistry at the University (he has since accepted the Chair of Chemistry at the Jefferson Medical School, made vacant by the resignation of Prof. B. Howard Rand), of Prof. F. Gurney Smith from that of Physiology, and of Prof. John Neil from the Chair of Clinical Surgery, have no connection with the changes instituted, but were the results of other definite causes.

The places made vacant by these resignations are to be filled at an early date. Among the applicants for the Chair of Chemistry are Profs. John Reese and George Barker, of the University, and Prof. Wormley, of Ohio. Drs. Lautenbach and Dépuis, the former of Schiff's Laboratory, at Geneva, and the latter an assistant of Brown-Séquard, at Paris, together with Drs. Henry Chapman and George Morehouse, both of this city, have applied for the Chair of Physiology. The trustees intend that the successful candidate for this position shall devote his whole time to the investigation and study of physiological questions, with instruction thereupon.

The nominees for the Chair of Clinical Surgery are Drs. Chas. Hunter, Harrison Allen, T. G. Morton, Lenox Hodge, John Ashurst, and John Packard.

Dr. J. J. Richardson is delivering lectures upon hygiene in the auxiliary faculty, in the place of Dr. Horace Hare, disabled by serious sickness, and Dr. J. H. Rothrock has been appointed to the Chair of Botany, in the place of Dr. H. C. Wood, resigned.

Comparative Protection of Vaccination and Variola.—Dr. L. P. Fitch, of Charles City, Iowa, writes: "Prof. Alonzo Clark once stated to the class, if I remember rightly, that a successful vaccination is a better protection against small-pox than the having had small-pox. Still it is the opinion commonly held by the laity, at least, that once having had small-pox is complete protection against a subsequent attack. And if a case of variolous disease occurs in a community it is thought to be very desirable to procure a nurse who has had small-pox.

"I do not find that the books, directly at least, advise the vaccination of those who have had the variolous disease. A case in point has just come under my observation. An Irishman, about forty-five years of age, when about five years old, was inoculated with variolous matter, and the pocks on his face are witnesses that he had quite a severe form of small-pox. On the 9th October last he brought his little daughter to me to be vaccinated, and after a little urging the father was vaccinated as well. The virus used was from a child I vaccinated a short time before with animal virus. Twelve days later father and child came back, according to promise, to 'show their arms.' The three vesicles or pocks on the father were fully as large and well developed as those on the child, and hers were perfect. Those on the father were more advanced than those on the child, being dried in the centre."

Stimulants Used by the Race.—It is estimated that coffee, both beans and leaves, are drunk by sixty millions of the human family. Tea of all kinds is used by five hundred millions, and opium by four hundred millions; alcohol, in its various forms, by five hundred millions of the human race. Tobacco is probably used by seven or eight hundred millions. These startling facts indicate a large proportion of the race using some substances that are either stimulants or narcotics. The work of the physiologist, in the future, will be to determine the true place in nature of these substances, and indicate where their use ends, and abuse begins.—*Quar. Jour. of Inebriety.*

Contagious Diseases.—The State Board of Health of Wisconsin have issued recently some excellent rules for preventing the spread of scarlet fever and diphtheria. For the most part they are based upon those laid down by the Health Board of this city.

Connecticut Medical Society.—The eighty-sixth annual convention of the Connecticut State Medical Society will be held in Hartford, Conn., May 23d and will continue in session the following day.

C. W. Chamberlain, M.D., Secretary.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

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A NEW DISCOVERER OF ANÆSTHESIA.

THERE is another claimant for the honor of discovering anæsthesia. This announcement will hardly startle the professional mind, thoroughly accustomed as it is to listen to the discussions of questions of priority. On the ether discovery it is quite a relief to have our thoughts diverted into an entirely new channel. Indeed, for the very novelty of the idea, we willingly ignore, for the present at least, Wells, Morton, and Jackson, and pay our respects to Dr. C. W. Long, of Athens, Georgia, who, Dr. Sims claims,* is the real discoverer of anæsthesia. It is such a matter of congratulation to have this vexed question so definitely settled at last, that we half forgive the modesty of Dr. Long for keeping himself so long in the background. At last, however, he is fortunate in having so distinguished a champion as Dr. Sims to urge his claims to the profession and to the world. The narrator became acquainted with the facts of Long's labors by mere accident.

In October, 1876, Dr. P. A. Wilhite, of Anderson, S. C., came to New York to consult Dr. Sims concerning the health of his daughter. Her case required a surgical operation, and it was necessary for her to take ether, which was given by Dr. Harry Sims. After the operation was over, and while they were waiting to see the patient fully restored from the effects of the anæsthetic, the conversation naturally turned upon the wonders of anæsthesia, when Dr. Wilhite said, "Doctor, I assisted at the first operation ever performed under the influence of ether." Dr. S. said, "But how could this be when you have never been in Boston, and the first operation ever performed under ether was by Warren, of Boston, in October, 1846, or, as some claim, by Marcy, of Hartford, in 1846?" Dr. Wilhite then told him that he had assisted Dr. Crawford W. Long, of Georgia, in extirpating a tumor from the neck of Mr. Venable, in March, 1842, while he was completely anæsthetized by the inhalation of sulphuric ether—that Mr. Venable was as profoundly anæsthetized as the patient then lying before them—and he also said that he had assisted Dr. Long to operate on other patients under the influence of ether in 1843 and 1844, while he was a student of medicine in Dr. Long's office. Dr. W. declared that Long was the real and original discoverer of anæsthesia, and he believed he would be so acknowledged if all the facts in the case were fully set forth.

As an item of corroborative history the patient upon whom the operation was performed, having been sworn July, 1849 (seven years after having taken the ether), says:

"In the early part of the year (1842) the young men of Jefferson and the country adjoining were in the habit of inhaling ether for its exhilarating powers, and I inhaled it myself frequently for that purpose, and was very fond of its use. While attending the Academy, I was frequently in the office of Dr. C. W. Long, and having two tumors on the side and rather back of my neck, I several times spoke to him about the propriety of cutting them out, but postponed the operation from time to time. On one occasion, we had some conversation about the probability that the tumors might be cut out while I was under the influence of sulphuric ether, without my experiencing pain, and he proposed operating on me while under its influence. I agreed to have one tumor cut out, and had the operation performed that evening (afternoon), after school was dismissed. This was in the early part of the spring of 1842. I commenced inhaling the ether before the operation was commenced, and continued it until the operation was over. I did not feel the slightest pain from the operation, and could not believe the tumor was removed until it was shown to me. A month or two after this time, Dr. C. W. Long cut out the other tumor situated on the same side of my neck. In this operation, I did not feel the least pain until the last cut was made, when I felt a little pain. In this operation, I stopped inhaling the ether before the operation was finished. I inhaled the ether in both instances from a towel, which was the common method of taking it."

These, then, are in substance the facts of the case as presented by Dr. Sims. Recollecting that Wells, who is generally believed to be the discoverer of anæsthesia, first used his nitrous oxide in 1844, Long apparently antedates him two years and eight months. Morton's anæsthesia with ether being on the 30th of September, 1846, was antedated four years and six months. So says the new history before us. If it had only been written sooner, how much trouble and printers' ink would have been spared? We are afraid, however, that many will not even take the decision of Dr. Sims as final, and will still continue to be disputatious. But it is proposed to compromise the difficulty by asking Congress to vote to each of the families of Long, Wells, Morton, and Jackson the sum of one hundred thousand dollars. As there is not much likelihood that Congress will be in any hurry to take up the discussion, there may still be time and oppor-

* Discovery of Anæsthesia, by Dr. J. Marion Sims, *Virginia Med. Monthly.*

tunity for a few discoverers to put in their claims. In the meantime it might be eminently proper for those having charge of the monument in Boston to enlarge its inscription surface, that when the roll of honor is finally complete, and the last man shall be satisfied that justice is done, no invidious distinctions shall be made. Then, and not till then, will each believer be able to worship at the particular shrine of his pet idol.

THE MEDICAL PROVIDENT SYSTEM.

Those who are hopeful of the establishment of the Medical Provident System in this city, received fresh encouragement from the report of Dr. S. F. Morris at the Public Health Association. It appears from an examination of the financial condition of the different dispensaries that, with one exception, they are all behindhand. So far as the purely selfish interests of these institutions are concerned, there is the strongest incentive for favoring any plan for pecuniary relief. This, after all, is the only hope for the Provident System. If the dispensaries as a whole are willing to adopt such a scheme, the battle is more than half won. We do not see why they should not do this. There is not the slightest danger of denying the poor such medical charity as they may deserve. They have never had reason to complain on account of the lack of gratuitous services. In fact, the error has been upon the other side, and the more we try to correct it the better will it be for the really needy. If the dispensaries are willing to become medical provident concerns, giving professional services only to those known to be poor, and making all others pay for them, we believe a proper initiative will be taken. The experiment deserves a trial, but it can only succeed as the result of a joint action on the part of the respective managers.

In the discussion of the question of the Medical Provident System we confess to a partiality for the interests of the medical profession. In all matters of equal importance to the profession this is at once our pleasure and our duty. But the circumstances connected with this particular project make it more than ordinarily obligatory on our part to lean strongly to the professional side. The physician wants money even more than the poor need advice. We are not injuring the poor so much by throwing our advice away, as we are injuring ourselves. If the Medical Provident System can help us to check the growing abuses of medical charity, then the sooner we adopt it the better. Any plan which proposes to make pecuniarily available to the physician that vast number who go to dispensaries, and yet who can afford to pay something, deserves very careful consideration. We are in favor of small fees rather than none at all. From Dr. Morris's report we learn that the working of the Provident System in England is very satisfactory. As might have been supposed, the greatest care is taken to draw the lines of distinction between the absolute pauper, those who pay a little, and the third class who can afford to give a legitimate fee. The rules of these British Associations could with profit be adopted by us. What is needed is a concerted action on the part of all our leading charities to give the project a fair start. We are glad to see that proper measures have been taken by the Association to secure this end, not the least beneficial of these being the enlistment of the valuable services of the Society for the Relief of the Poor in perfecting a plan for district inspections. It is useless to appeal to the self-respect of the would-be pauper, for he has none. His reform lies more in the direction of compulsion than persuasion. But even those who are most encouraged by the recent efforts to give it a practical turn have reason to look with very distrustful eyes to the doings of the out-door department of the New York Hospital, and to the shameful abuses in our college and hospital clinics.

But the best regulated provident concerns can never hope to compete with "the original dollar shop" of large capital and extensive advertising facilities. Medicine is incapable of being elevated into a business and still retain its identity. The best that can be said for the Provident System is that it is not a matter of pecuniary speculation, but one of reform.

PROFESSIONAL DUTY AND SACRIFICE OF LIFE.

Two surgeons died recently in Paris from diphtheria, the result of sucking the windpipes of patients upon whom they had operated for croup. These lamentable accidents are becoming so common that they are beginning to be considered as a natural consequence of the performance of professional duty. There is such a desire on the part of the profession to save life at all hazards, that it appears almost sacrilegious to question the right to indulge in its unlimited gratification. But is it not quite pertinent to inquire if the risk to the life of an operator by sucking a diphtheritic wound is sometimes needlessly incurred? At all events, is there not some means which can be devised to render the hazardous procedure unnecessary? In this day of invention, cannot some efficient instrument be constructed which shall take the place of the surgeon's mouth in cases of like emergency?

MEDICAL LIBRARY FOR THE ACADEMY OF MEDICINE.

Viewed from the proper standpoint, the effort being made to establish a library by the New York Academy of Medicine deserves the most unqualified encouragement. In the first place, the Academy is the only medical home of New Yorkers, and probably will continue to be such for many years to come. It is true there are many public libraries in this city where medical works may be found, notably the Astor, Mercantile, New York Society and College of Pharmacy, but in all of these either a certificate of membership is required, or else a subscription fee.

The late Dr. Valentine Mott, by a provision of his will, directed that his library and surgical instrumen

should be preserved and placed in a room specially appropriated for that purpose. His wife was empowered to bequeath them to one or more of his grandsons who should bear his name, study medicine, be a graduate, and have a respectable, honorable name. With the addition of that of the late Dr. Isaac Wood, this library forms the Mott Memorial Medical and Surgical Library.

The library of the New York Hospital is the largest, and in some respects, the most complete in the city. It numbers ten thousand volumes, and its yearly increase is over one hundred and twenty-five volumes. Many other libraries or small collections of books exist in connection with hospitals, colleges, etc., or independently, but they are mostly intended for the use of specified persons, and cannot be reached by those outside.

The following points are insisted upon by Dr. S. S. Purple in his address on the Medical Libraries of New York: 1st. The institution of a Library Fund, which should be properly invested in such securities as will be safe and yet yield a fair interest; and 2d. Voluntary donations of medical books, pamphlets, journals, portraits, engravings, busts, and manuscripts, which may have become useless or burdensome to their possessors. He also suggests that the library shall be open to the use of all regular members of the profession. The popular error which exists in the profession that only the best books and latest editions are worth preserving is deprecated, and all physicians of good standing are invited to contribute any book or pamphlet which may appear useless; for, however obscured or darkly concealed by peculiarities of language, there are many facts which will ultimately be unearthed and serve a good purpose.

Reviews and Notices of Books.

Atlas of Skin Diseases. By Louis A. Duhring. Philadelphia: J. B. Lippincott & Co. 1877.

After a delay, which was unavoidable, the second part of this admirable atlas has appeared, and the publishers assure us that hereafter the parts will be issued regularly. There are in the second four illustrations as in the first, which are of a very high order of merit. Under the first picture we find the title acne rosacea, at which we are somewhat surprised, as it strikes us as a most excellent reproduction of a case of acne vulgaris, in which pustules are the preponderating lesion, between which are erythematous patches. The presence of well-marked numerous comedones strengthens this opinion in our minds. As a work of art the picture is very good, both as to the delineation of the lesions and of the shading of the colors. The second picture of ichthyosis is also admirable, the diamond-shaped plates of epidermis, spoken of by some authors, being very naturally portrayed. The artist has been, we think, particularly happy in reproducting the *café au lait* color of tinea versicolor, of which we have a typical example. Perhaps the best illustration in this fasciculus is that showing sycosis non-parasitica, both as to the prominent manner in which the lesions are delineated, and the grouping of the colors. The explanatory text is clear, simple, and practical, and will aid the student in this department greatly. We accord to this second as to the first part our unreserved praise and give it our hearty commendation as an atlas of skin diseases which is both practical, simple, and accurate; certainly the art of reproduction of morbid states of the skin has been brought to a high state in this work by Dr. Duhring, of whom it may be truly said that he adorns that which he touches.

Reports of Hospitals.

MANHATTAN EYE AND EAR HOSPITAL.

CASES ILLUSTRATING ELECTRO-THERAPEUTICS.

Service of Dr. E. C. Seguin.

W. R. Bindsall, M.D., Clinical Assistant.

Case I.—*Incontinence of Urine.*—Male, æt. 9; was presented at the clinic July 1, 1876. He had an attack of pneumonia when two years of age, and during convalescence incontinence of urine came on, from which he did not recover. During all this time the incontinence was about the same, night and day. The urine was evacuated in considerable quantities at intervals of about three hours, he being perfectly indifferent to its escape.

The electrical treatment consisted in the application of the faradic current three times a week. Large sponge electrodes were used, one placed over the sacrum, the other on the pubis. The fortieth of a grain of strychnia was given twice a day.

July 10.—No improvement. The strychnia is increased to the thirtieth of a grain.

July 12.—No change until to-day. He is now able to urinate voluntarily with considerable force. The strychnia is increased to the twentieth of a grain.

July 17.—He has passed urine quite often since he was last here. He was ordered to urinate every hour. The strychnia is discontinued, and a fifth of a grain of extractum belladonnæ and fifteen minims of extractum ergotæ fluidum are to be given three times a day.

July 19.—There has been no incontinence for two days, except at night. He is directed to increase his doses one-third.

July 28.—No diurnal incontinence has existed for ten days, but there is incontinence during sleep. As no effect has been observed from the belladonna, the doses are to be increased to one-third of a grain.

The patient failed to come to the clinic after his visit on July 28, and later, unfortunately, could not be found. It is probable that putting the boy thoroughly under the influence of the belladonna would have finished the cure.

Case II.—*Paralysis of Left External Rectus.*—Female, æt. 29, came to the Manhattan Eye and Ear Hospital, Aug. 14, 1876, complaining of diplopia. One week previous she was in good health. She went out of the house into the hot sun for a few minutes, and on returning felt giddy and sick. Within three hours she noticed diplopia and dimness of vision. There was no other disturbance, except a slight headache immediately following the exposure, and a severe one on the third day.

Examination showed paresis of the left external rectus; the insufficiency for distance being 21°.

The patient was transferred by Dr. Webster to the class for nervous diseases.

Electricity was ordered. Galvanism was applied continuously for about two minutes, with anode on the temple, and cathode, a large sponge electrode, over closed eye. Faradization was accomplished by the use of an electrode, consisting of an ordinary wooden electrode handle, in one end of which was screwed a short brass rod about an inch and a quarter in length, that terminated in a rounded head an eighth of an inch in diameter. This was used by carefully placing it on the conjunctiva, over the insertion of the paralyzed muscle, and allowing the sensitive surface to become accustomed to its presence before the circuit was closed. Then an assistant was directed to close the circuit by placing a sponge electrode on the temple, the operator keeping the lids apart, and holding the small electrode on the conjunctiva in a firm but gentle manner. By this method the conjunctiva may be educated to tolerate both the mechanical and electrical irritants for a few seconds, which it would not do if both were applied at once. A very weak current was used, and as the electrode must be removed every few seconds, it was necessary to apply it from five to ten times at each *séance*.

Aug. 25.—Ordered ℞ Extr. nuces vom. gr. iii.; ferri redact. gr. xxx. M. et ft. pil. No. xii. Sig. One after each meal.

The patient received electrical treatment twice a week, and continued to improve until Nov. 8th, when there was an insufficiency of only 1°.

Case III.—*Compression of Musculo-Spiral Nerve.*—Male, æt. 58. Two weeks before his appearance at the clinic, Oct. 7, 1876, he went to bed inebriated, and awoke with numbness and loss of power in the right hand and wrist, on which he had lain.

He exhibited a complete paralysis of all the extensors of the wrist and fingers, and the supinator longus on the right side. There was galvanic reaction to six cells in the extensors on the right side, but the same current produced none on the left, and a faradic current of moderate strength caused better reaction on the paralyzed than on the healthy side.

Faradism was ordered; also a support to the hand and wrist by an elastic band attached at the arm and fingers, in accordance with the indication of Dr. John Van Bibber, of Baltimore.

Oct. 23.—There is good contractility of the extensors to the faradic current, but only slight voluntary power in the fingers.

Nov. 3.—The patient is somewhat inebriated. There is complete analgesia in both arms, no pain being produced with a faradic current that discharges sparks from the electrode to the skin.

Nov. 10.—Faradic reaction still continues good. There is more sensibility to the current than there was at the last visit.

Nov. 20.—A galvanic current from twenty-four cells produces no reaction in the left forearm, but in the right reaction is obtained with eighteen cells. Faradic reaction is equal on both sides. There is almost complete recovery of voluntary power, except in the supinator longus.

We have in this case of paralysis from pressure upon the musculo-spiral nerve electrical reactions that are peculiar.

With regard to galvanic excitability we have what is usually found after nerve injuries, reaction by the paralyzed muscles to a less current than is necessary to excite the non-paralyzed muscles. But with the faradic current, which usually produces only a slight reaction, or none, in the paralyzed parts, we have an increased reaction in the paralyzed muscles as compared with those of the normal side, and this, without return of voluntary power for a long period.

The prognosis in injuries of nerves, when, after several weeks, faradic reaction is good, is much more favorable for ultimate recovery than when it is absent, as in the "degeneration reaction," and recovery is apt to be more rapid, though, even in these cases, weeks or months are sometimes required before a cure is effected.

Case IV.—*Facial Paralysis from Injury.*—Male, æt. 39. Came to the clinic Oct. 13, 1876. He was struck seven weeks before, back of the left ear, by a sandbag, causing unconsciousness and bleeding from the ear. No other fluid was observed to escape. Consciousness was regained in about three hours, and very soon after he heard a noise in his left ear, which was immediately followed by deafness in that ear. On the morning of the third day after injury, he could close his left eye, but at noon was unable to do so, and complete paralysis of all the facial muscles of that side followed. He has had vertigo, with tendency to the left on several occasions; has had no headache; no dysphagia.

Examination showed absolute facial palsy of the left side. The uvula was straight and active. He could not hear a watch tick with the left ear, but could hear a tuning-fork well over the mastoid process and frontal region of both sides. Sensibility of face normal. Electrical treatment with both currents was ordered, and he was directed to wear a supporting wire. This was made of copper, about one-eighth of an inch in diameter, plated with silver. One end was bent in the form of a hook, and placed in the angle of the paralyzed side of the mouth, so as to draw it outward and upward, thus counteracting the non-paralyzed muscles, and putting the mouth in a proper position. This traction was maintained by carrying the other end of the wire upward, across the malar bone, and bending it around the concha of the ear.

October 16.—Slight reaction is obtained with the faradic current in the frontal portion of the occipito-frontalis.

November 3.—No improvement in voluntary power. All the facial muscles respond to the galvanic current to an abnormal degree. With the faradic current there is improved reaction in the occipito-frontalis and corrugator supercilii.

November 8.—The patient can half close his eye, and can raise his eyebrows a trifle. With the faradic current there is distinct reaction in the occipito-frontalis and corrugator supercilii muscles, but no response in the others. He can hear a watch tick over the mastoid process.

November 10.—Contractions are obtained in the occipito-frontalis with the faradic current applied to the nerve, and in the orbicularis oris, with one electrode on the mucous membrane of the lips, and the other on the nerve. There is but little improvement in voluntary power. Since the above was written the patient has almost entirely recovered voluntary power.

Case V.—*Paralysis from Otitis Media Suppurativa*—Female, æt. 35. Came to the clinic Sept. 20, 1876. Four months previous she "caught cold," and had an attack of otitis media suppurativa of the left side lasting three weeks. On the second day her face was paralyzed on the left side.

Examination showed complete paralysis of the left facial nerve, and a slight deviation of the tongue to the right. Galvanic reaction was obtained in the lower facial muscles with six cells, seven cells actin

well on all muscles of the paralyzed side, with anode on nerve, and cathode on muscle. On the normal side the reaction was not perceived until eight cells were used, these acting on the occipito-frontalis, and orbicularis palpebrarum, eleven cells being required to produce contractions of the lower facial muscles. The contractions on the paralyzed side were slower than those on the normal side.

Treatment with both currents, three times a week, was ordered.

September 27.—There is great increase of galvanic reaction on the paralyzed side; no reaction with the faradic current, but some voluntary power about the orbicularis palpebrarum.

October 18.—The patient has recovered considerable voluntary power, but the faradic current produces no reaction in the paralyzed muscles.

November 22.—There is for the first time faradic reaction in the orbicularis oris, with one electrode on the mucous membrane of the lips, the other one on the nerve. There is almost complete recovery of voluntary power.

December 5.—Faradic reaction has returned in all the upper facial muscles, and in the orbicularis oris.

Remarks.—Taking a comparative view of the three last cases, we find that in all of them there was increased galvanic reaction; that in Case III. there was increased faradic reaction, but for a long time no return of voluntary power; that in Case IV. there was a slight return of faradic reaction in certain muscles, followed by a partial return of voluntary power in those muscles, all the changes being very slow. In Case V., four months after the attack, there was a rapid return of voluntary power, but no faradic reaction for two months later, then a partial return. In the two cases of facial paralysis we have the so-called *entartungsreaction*, or degeneration reaction of Erb, viz.: absence of muscular contraction, when either current is applied to the nerve-trunk, with preserved, or abnormally great, and qualitatively altered contractility with the galvanic current, and absence of contractility with the faradic current, when they are applied to the muscles themselves. It is not to be understood that these are the conditions in all stages, or as the parts go on to recovery or to permanent loss of power, we have different reactions accordingly; in the latter case galvanic reaction finally disappears entirely; in the former, a variable return to the normal reaction takes place. The method of conducting an examination in such cases of paralysis is, according to Erb, to test faradic excitability, by applying the induced current in the following manner: First, exciting the affected motor nerve with one electrode—the other is placed upon some indifferent part; and secondly, by applying both electrodes to the palsied muscles themselves. In cases of severe nerve injury, after a few days we obtain no faradic reaction in nerve or muscle, and in slight injury, faradic reaction may be only diminished, or even normal.

We are to test galvanic excitability by first passing downward current through the muscle, both electrodes being placed on the muscle. The strength of the current required to produce contractions must be noted, and in order to observe the qualitative changes referred to we must observe whether the contractions occur on opening or closing of cathode or opening or closing of anode, and if they are obtained in more than one of these conditions, the relative strength of contraction in each should be recorded. In the "degeneration" reaction we obtain, by passing a galvanic current through the muscle, an anodal closing contraction equal to or greater than the cathodal closing contraction, and a cathodal opening contraction equal to the anodal opening contraction, the contractions being slow and tonic; while the law of normal contraction is contraction on cathodal closing and anodal opening, though it is modified by the strength of the current. The contractions are quick and clonic. After testing the muscle in the manner described, we repeat the method, except that this time both electrodes are placed on the nerve-trunk above the muscle.

Reports of Societies.

ILLINOIS STATE MEDICAL SOCIETY.

(Special Report for MEDICAL RECORD.)

THE regular annual meeting of the Illinois State Medical Society was held at Chicago, May 15, 16, and 17.

The time was taken up with the usual array of business—the reading of papers, their very hasty and unfinished discussion, the making of reports, elections, and in the way of entertainment a banquet on the evening of the second day, tendered by the local profession to the members from abroad.

THE STATE BOARD OF HEALTH.

DR. E. W. GRAY, of Bloomington, from a committee appointed to urge the Legislature to establish a State Board of Health, reported that the present legislature were sure to pass the bill originally presented to them, shorn, however, of all its essential provisions except these: 1. In the appointment of a State Board; 2. For the expenditure of five thousand dollars in two years for the expenses of the work; 3. For authority to compel the registration of births, marriages, and deaths. All authority to make investigations or establish any sanitary regulations further than these had been stricken from the bill.

DR. N. S. REED read a report on Practical Medicine.

DRAINAGE IN EMPYEMA.

DR. E. F. INGALLS read a very creditable paper on the treatment of empyema by the introduction of a drainage-tube without the admission of air either in the operation or subsequently. The tube is introduced, by his plan, through a canula after the latter has been introduced in the usual way with a trocar, and while the pus is flowing through the canula—the tube (of rubber) being full to the very end of water. The canula is then withdrawn and the tube left in the chest. A piece of sheet rubber with a small hole in its centre is then passed over the tube and fastened with tapes to the sides—this holds the tube in place. The outer end of the tube is to be kept in water, or kept closed by being fastened in a bent position, and the chest emptied of pus and irrigated through the tube daily by the syphon principle.

A BAD RESULT FROM ESMARCH'S BANDAGE.

In a report on Surgery, wherein the improvements witnessed during the year were discussed, Dr. J. L. White, of Bloomington, read a history of a bad result of the use of Esmarch's bandage. A young man, healthy, but perhaps not very vigorous, had contracted early in life an anchylosis of the knee, flexed at a right angle. For its relief an operation was made with the blood less method. The rubber cord was applied high up on the thigh. For a day and a half after the operation the condition was good. Then the limb became rapidly black, and gangrene was soon established

below the knee. Amputation was now resorted to, when all the connective tissue below the point of affliction of the cord was found to be in a state of incipient gangrene, and the final cut was made close to the body. Death resulted now in one day.

MISCELLANEOUS SUBJECTS.

Dr. C. T. Wilbur, of the Jacksonville Asylum, read a thorough paper on "Idiocy." He discussed exhaustively the relations of the idiot to society, and his proper education and management.

Dr. P. S. Hayes, of Chicago, read a paper on Electro-Therapeutics, devoted chiefly to a review of improvements during the year.

Dr. E. M. Griffiths, of Springfield, in a paper on Materia Medica, took strong grounds against the use of ready-made prescriptions and pharmacists' formulæ by physicians. He opposed the adoption of the metric system in prescription writing. It was impossible to remember, was cumbersome, and would work blunders in writing and filling prescriptions much more than the system now in vogue.

Dr. W. L. Ransom read a paper on *Apocynum Cannabinum*. He had found it to cause a rapid disappearance of the œdema of general dropsy without increasing the urine, the alvine evacuations, or the perspiration.

MORTALITY OF SCARLET FEVER.

Dr. Chas. W. Earle read a paper on the recent epidemic of scarlet fever in Chicago. The most careful investigation had failed to show a death rate among those who had had this disease of over 12 per cent. His belief was that the figure should be 8½ per cent. In those parts of the city where the sewerage was perfect, the streets all paved, and the alleys kept clean, the mortality was greatest, while in the quarters without sewers or pavements, with stinking cesspools, and in close contiguity to packing-houses and rendering establishments, the mortality was the least. The free use of sulpho-carbolate of sodium as a prophylactic had injured many children, and predisposed them to attacks of the disease.

Dr. J. H. Hollister read a paper on the "Dietetics and Hygiene of Children"—really a small treatise in itself—and Dr. Mathews, of Carlinville, read a paper on Congenital Phymosis and Nervous Phenomena Resulting therefrom.

A CASE OF MURDER, WITH QUERIES.

Dr. A. C. Corr, of Carlinville, sent to be read a history of a case of murder, with some queries.

Called to the case in question early in the morning, he found a man dead, with the jugular vein and carotid artery of one side both severed by a cut; a child of five dead with its skull crushed in; a woman, the wife and mother, insensible and nearly dead, with skull broken as by a blow, a deep gash on the side of the face, with the malar bone and external angular process of the temporal bone crushed in, and the eye-ball bursted, and with a portion of the scalp on the crown carried away by what was evidently a charge from a shot-gun at short range, as the skull was denuded and the edges of the skin and hair round about burnt—beside other injuries. A bloody butcher-knife was found on the floor, also a shot gun smashed in pieces, apparently by having been used as an instrument for pounding, *i.e.*, dealing blows. The man and child were in their night-clothes; the woman was dressed in her ordinary clothes.

The woman is recovering. On regaining consciousness she declares she does not believe her husband did the deed, and that she remembers nothing from the time she *undressed*, and with her family retired for the night before the murder until days afterward. She is under arrest for the crime herself.

The queries are: Could such injuries as the woman received have destroyed her memory of the events of that night, while allowing her to recall all previous to going to bed? 2. Could a man with two main vessels of his neck cut across have time before sinking from the loss of blood to inflict such injuries on another as this woman received?

Dr. J. L. Hayes, of Paris, read a paper on Ophthalmology; Dr. E. L. Holmes, of Chicago, one on "Foreign Bodies in the Globe of the Eye," and Dr. S. O. Ritchie one on "Diseases of the Middle Ear in Connection with Nasal and Pharyngeal Inflammation."

Dr. J. S. Jewell read a paper on "The Influence of the Nerves over Nutrition," and Dr. S. J. Jones one on "Diseases of the Eye and Ear."

The following named officers were elected for the ensuing year:

President—J. L. White, of Bloomington; *First Vice-President*—E. P. Cook, Mendota; *Second Vice-President*—B. M. Griffith, Springfield; *Treasurer*—John H. Hollister, Chicago; *Assistant Secretary*—H. B. Buck, Springfield.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 11, 1877.

Dr. E. G. Janeway, President, in the Chair.

Dr. W. T. Bull exhibited a specimen of loose cartilage removed from the knee-joint of a patient aged twenty years. An incision was made directly upon the part, and the wound was closed by the use of the antiseptic dressing. The patient left the hospital on the eighth day perfectly cured.

URETHRAL CALCULI.

Dr. E. Mason presented two urethral calculi, removed by operation from a patient of Roosevelt Hospital. Four years ago the said patient had been operated upon by Dr. Eager, for stricture of the urethra, and two years ago he came under the observation of Dr. Mason at Roosevelt Hospital, with several of these strictures, one of which, situated in the membrano-bulbous portion, was impassable. He refused an operation at that time, and did not place himself under treatment again until November, 1876. At that time he had several sinuses in the perineum, through which most of his urine found exit. December 5th, on attempting to introduce a sound, a calculus was detected at the peno-scrotal junction. The operation of perineal section was performed and all the strictures divided. Two calculi were thus discovered in the urethra; the smaller, weighing three grains, was in the portion of the urethra indicated; the larger, weighing a scruple, and of the diameter and shape of a stem of a clay pipe, was discovered between two strictures.

SPECIMENS FROM A CENTENARIAN.

Dr. A. H. Smith presented specimens from the body of Capt. Lahrbush, who was said to have lived to the age of 111 years and 25 days. He had enjoyed very good health, with the exception of habitual constipation, up to a short period of his final illness. He had been in the habit for many years of consuming large quantities of opium, and during a considerable period had taken as much as a drachm and a half daily. On January 21st, after an exposure to very severe weather he was seized with an attack of congestion of the lungs

accompanied with intense dyspnœa. He rallied somewhat from this, but continued in a more or less weakened condition until the close of his life.

A fortnight previous to his death, his right thigh was found to be enlarging. On careful examination, this enlargement was made out to be an abscess, which, becoming painful and showing a marked disposition to increase, was aspirated. The operation was necessitated three days in succession, and the quantities of brownish fluid which were withdrawn were respectively, 18, 12, and 8 ounces. After the last tapping, there did not seem to be much effort at refilling.

During his last illness there was also discovered on the right side of the abdomen a large painless tumor about midway between the lower border of the ribs and the crest of the ilium.

The patient died April 3d, of asthenia.

At the autopsy, the abdominal tumor was found to be the size of a child's head, and occupied the place of the kidney of that side. It proved to be a cyst filled with a material resembling hashed liver. Under this sac and connected with it was another of similar contents and of similar appearance. The growths were very slightly adherent to the intestines. The inner and posterior portions were attached to the spinal column by means of a cord, which appeared to be the remains of the renal vessels of that side.

An examination of the tumor of the thigh disclosed the existence of an abscess formed of three cysts, lying underneath the vastus externus muscle. The contents of these cysts were very nearly the same as those found in the abdomen.

The left kidney was somewhat diminished in size, and presented a number of cysts on the surface. The capsule was easily stripped. In some places the cortical substance was almost entirely gone. During his lifetime, however, there was never any evidence of insufficient performance of the renal function. The liver was somewhat smaller than natural, positively fatty, very friable. The substance of the right lobe contained numerous small transparent cysts. Heart fatty, valves normal. Arch of aorta enormously distended, filled with calcareous patches; in some places the walls of the artery were almost penetrated by ulcerations.

Lungs were in good condition. There were no pleuritic adhesions, except to the diaphragm. On opening the chest the softness of the ribs was marked, the knife cutting through them like cartilage. The skin was in the same condition, no more resistance being made to the needle than would be afforded by a soft towel.

Dr. Janeway thought that the tumor in the thigh was an old hæmatoma.

CARIES OF THE LUMBAR VERTEBRÆ. SACRUM, ILIUM, AND SACRO-ILIAC ARTICULATION—PERFORATION OF SPINAL ABSCESS INTO THE SPINAL CANAL—CEREBRO SPINAL MENINGITIS.

Dr. Satterthwaite presented portions of the sacrum and ilium, with the following history: F. M., æt. 34, New York, was admitted into the Presbyterian Hospital, Dec. 24, 1876. Eighteen months previously a large swelling made its appearance on the right side of the abdomen, extending, according to the patient's description, from the crest of the ilium downwards and backwards towards the spine. Eight weeks later this swelling was lanced and a large amount of matter escaped. The wound did not heal, and the discharge was constant. The treatment had consisted of injections of carbolic and salicylic acid solutions.

On admission to the hospital a sinus was discovered over the crest of the ilium about five inches from the posterior superior spine. It led to eroded bone, and then, extending inwardly and backwards, ran towards the vertebral column. Two days later the sinus was enlarged, in order that the parts might be more thoroughly explored, and sponge-tents were introduced, but, as they gave rise to severe pain, were subsequently removed. A few days later (Dec. 29th) extensive crucial incisions were made, and it was then found that fistulous tracks extended under the iliacus muscle.

The case was regarded as one of spinal abscess, though the exact bony points involved were not evident. The patient's health, which had before been delicate, now began to fail, and on Jan. 2, 1877, he had severe chills, followed by fever, with a temperature of 102°. He became very restless, and complained of pain along the spine, increased on pressure, so that he lay either upon his side or abdomen. He also had severe headache. On the next day he became delirious, his tongue was tremulous, and he had muscular twitchings all over the body, well-marked subsultus tendinum, and he picked the bedclothes. He died at 6.30 P.M. the following day. It was observed at the time of his admission to the hospital that he walked like a drunken man—he complained of "pins and needles" in his legs and feet. There was at no time tenderness over the sacro-iliac junction, or on pressing the ilia together. He had no difficulty in urinating, or in having motions from the bowel. There was also no difference observed in the relations of the thigh, so far as abduction or rotation outwards was concerned.

At the post-mortem examination it was found that the exposed bone upon the crest of the right ilium was about two inches in length and the breadth of the crest; from this point a sinus led backwards and downwards along the anterior face of the posterior portion of the ilium to a point between the fourth and fifth lumbar vertebræ, and the anterior surfaces of the bodies, fourth and fifth lumbar and part of the first sacral being bare. There was no displacement of the bony parts, but portions of the last lumbar vertebræ were loose and nearly detached. In separating the sacrum from the ilium there was a small spot of carious bone upon the opposed surfaces the size of a three-cent piece. At the junction of the fourth and fifth lumbar vertebræ perforation had taken place into the spinal canal, and pus had entered. Beneath the dura mater the cord was found to be covered with a thick fibro-purulent deposit, which extended for its whole length. The brain was covered by a large collection of serous fluid, in which there was pus and numerous flocculi of lymph. The veins of the membranes were filled with blood. The lungs contained numerous small cavities and calcareous nodules, around which was circumscribed pneumonia. The liver was waxy. The kidneys presented no noticeable change. As for the cause of the caries the patient referred it to a fall which he had received some two years before the first manifestations of the symptoms. The case was regarded as interesting in showing an unusual mode in which death may be brought about in Pott's disease. It was presumed that the fatal issue was due to the passage of pus into the spinal canal, setting up primarily inflammation of the meninges of the cord. The small amount of disease at the sacro-iliac articulation would account for the absence of symptoms indicating sacro-iliac disease.

CARIES OF LUMBAR AND SACRAL VERTEBRÆ—DOUBLE PSOAS ABSCESS.

Dr. Satterthwaite also presented a specimen of

carious lumbar vertebræ with the following history:

B. A. A., 31, Louisiana, single; was admitted into the Presbyterian Hospital April 20, 1875. His disease first manifested itself by pain in the back, occurring some six or eight months previously. He then commenced to lose health and strength, and a large swelling appeared in the right groin. When received into the hospital he was hardly able to stand, and he had the sensation of "pins and needles" in his legs, this feeling having become more intense latterly. There was also a large swelling on the inner side of the right thigh and in the right iliac region. Openings were made, and the patient experienced relief from the sensations already alluded to, though his health gradually failed, and he died August 31, 1875. At the autopsy it was found that the second, third, fourth, and fifth lumbar vertebræ were somewhat excavated posteriorly and the cavities were filled with pus. Exit was found by perforations of the psoas muscle on each side. On the right side it pushed down between the deep layer of the superficial fascia and the glutæi muscles, and then penetrated the fascia lata; then followed that tissue round to the inner aspect of the thigh. Another sinus upon the same side also led up to the skin below Poupart's ligament. On the left side the matter penetrated the psoas muscle, and passing down the substance of the muscle reached the skin below Poupart's ligament. The case was interesting as showing the courses that matter may take when there is caries of the lower lumbar and sacral vertebræ.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 3, 1877.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

REPORT ON PHIMOSIS.

DR. L. M. YALE made a valuable report on phimosis from the Surgical Section to the Academy. The reporter accepted the definition now generally given—namely, "a condition of the penis in which it is impossible to retract the prepuce behind the glans." The following propositions were submitted:

Proposition I.—In childhood phimosis was the rule, and might be considered as physiological.

The frequency of phimosis was believed to be a commonly accepted fact. No one could have failed to observe how rarely the glans was seen uncovered in young children, even when the penis was in a state of erection.

Such inability to uncover the glans was frequently due to the length of the prepuce, and to the narrowness of its orifice alone.

This condition had been noticed in cases in which free sweep of a probe could be made beneath the foreskin quite to the sulcus; in cases of so-called "ballooning" of the prepuce, and notably in certain cases occurring in adolescents, where a narrow and somewhat tortuous outlet, admitting with difficulty an ordinary probe, rendered micturition slow and difficult. It was believed that, as a rule, adhesions in the sense of agglutination of the two epithelial surfaces existed in phimosis, and that in most cases they constituted the real difficulty to be overcome.

Proposition II.—Phimosis, by its unusual severity or persistence, might become pathological, and might give rise to disturbances both local and remote.

The *local disorders* included:

1. Those which were purely mechanical in their nature, such as interference with the proper development of the genitals (not common); difficult (common) or intermittent micturition (less common); or even total retention of urine (occasional); retention of secretions beneath the prepuce.

2. The direct result of the mechanical irritation, or obstruction, such as itching of the glans (very common, and might give rise to masturbation); pain; balanitis (frequent); straining to void urine, and consequent prolapsus recti and hernia.

3. Genito-urinary symptoms, not directly mechanical, such as priapism, and incontinence of urine (most common of all); vesical irritation, or tenesmus; hæmaturia, and, in adult life, erotic dreams, seminal emissions, painful and unsatisfactory coitus. Incontinence of urine so commonly depended upon phimosis, that the latter condition should be corrected before resorting to other treatment. *The remote phenomena* included general disorders of the nervous system, and among such were mentioned gastralgia, neuralgia, amblyopia, "reflex paralysis," paresis, incoordination.

The earliest references to such a cause for nervous disarrangement that the reporter had met with were in Dr. Bumstead's work on venereal diseases. Those references were to articles published by Fleury and others, and the neuroses specified were gastralgia, neuralgia, and amblyopia.

Reference was then made to the cases reported to the American Medical Association by Dr. Sayre, of New York, in 1870, under the title, "Partial Paralysis from Reflex Irritation caused by Congenital Phimosis and Adherent Prepuce."

In a paper read before the New York Academy of Medicine in 1874, Dr. F. N. Otis of New York reported a large number of cases illustrating "Reflex Irritations throughout the Genito-Urinary Tract, resulting from Contraction of the Urethra at or near the Meatus Urinarius."

In 1875, Dr. Sayre, in a paper before the American Medical Association, reported additional cases illustrating retention of urine with partial paraplegia, enuresis with hebetude, incontinence with paraplegia, all relieved by removing the phimosis.

Dr. Jas. S. Green had reported a case of "hyperæsthesia of the skin over the whole body, very marked, want of co-ordination of motion in the arms and hands, and great difficulty in walking." The case grew worse for three years, in spite of treatment. Circumcision was followed by relief of the hyperæsthesia within a few hours, and in forty-eight hours, the use of the limbs had been recovered entirely.

The form of nervous disturbance observed in this class of cases had been notably inco-ordination of muscular movements, including those necessary to speech, less commonly spasm or spastic contraction, and paresis, usually of the lower extremities.

The reporter had not found the record of any case of paralysis of sensation, but hyperæsthesia was often mentioned. Several cases of amblyopia had been reported.

A mental condition resembling hysteria or hypochondriasis was a frequent element in the clinical histories. In the collection of cases, of course those only should be admitted in which relief of the phimosis was followed by marked and speedy amelioration of the symptoms. Another point more difficult of determination was whether, in a given case, the neurosis depended upon the phimosis *per se*, or, as suggested by Dr. Jacobi, upon "the habit of masturbation so easily contracted when the phimosis is marked enough to prove an annoyance and irritation, and frequently given up when the source of constant irritation

has been removed." It was not claimed that cases of reflex disturbances remote from the genito-urinary organs were very frequent, but simply that, setting aside the cases which were, for the reasons stated, doubtful, there remained a sufficiently large number to give phimosis a place as a recognized cause of neurosis, and one which should not be overlooked in making out the etiology of a given case. It was only fair to consider cases in which relief of the phimosis alone had been followed by immediate cessation of the nervous symptoms as evidence of the dependence of the latter upon the former condition. It might be safe, however, to go beyond that, and whenever there was marked irritation of the genitals with phimosis, even if it was not believed that the condition of the prepuce was the sole or main cause of the coexisting neurosis, where, indeed, it was quite certain that the nervous manifestations, or the intellectual deficieney, was due to causes beyond our reach, it might be safely assumed that the relief of the phimosis would be productive of benefit. The removal of a source of irritation would probably be followed by the subsidence of such aggravation of the prime trouble as had been due to such local cause, and the prompting to masturbation much diminished.

It was to be remembered that the amount of remote nervous disturbance was by no means proportionate to the apparent local irritation. A case in illustration was reported, in which almost constant priapism was the chief symptom; the boy was also restless in his sleep and micturition tardy. Circumcision relieved all the local symptoms, and the child slept quietly directly after the operation. With regard to treatment, reference was made to breaking up adhesions, the forcible retraction of the prepuce with or without division, divulsion of the preputial orifice, and complete circumcision.

Bokai, who only interfered when there was pathological symptoms, relied solely upon retraction, breaking up the adhesions with a probe or other suitable instrument. Inflation of the prepuce with water forced from a syringe had been recommended for the same purpose. Dr. Holgate had found forcible retraction sufficient; the glans, after being cleaned of smegma, was anointed, and the prepuce again brought forward. The manœuvre was to be repeated daily by the surgeon or attendant. If the prepuce was redundant, circumcision was thought to be the preferable operation.

Splitting of the prepuce might be done to assist the retraction. In adolescents or in children, when the prepuce had been the seat of much inflammatory process, the knife would be generally needed in one method or the other.

Notes of twelve cases of nervous derangements, dependent upon phimosis, and relieved by circumcision, by Dr. James S. Green, of Elizabeth, N. J., accompanied the paper.

Dr. Lewis A. Sayre reported several cases in which rapid and marked amelioration of nervous symptoms had followed circumcision.

Dr. F. N. Otis contributed corroborated evidence regarding the effect of phimosis upon a *peculiar condition of sexual weakness*, either associated with seminal loss or otherwise. He had had his attention drawn to that difficulty as aggravated if not produced by the irritation of a redundant prepuce. Reference was made to a case then under observation. The patient, an adult, had been suffering from seminal loss for a long period, and had been treated for spermatorrhœa according to the most approved plans both in this country and in Europe, and with the result only of affording temporary relief. All local applications seemed to aggravate his trouble. He became very despondent, and among other things which affected him unpleasantly was his complete inability to ride on horseback, for he had been very fond of such exercise. His despondency increased; he had more or less passage of seminal fluid with the urine; and erection was imperfect. When he came under the care of Dr. Otis, he was in a state of mind bordering on melancholia. The prepuce was long, the glans penis sodden, because of being kept constantly poulticed by a redundant prepuce, and there was a slight strieture at about one-third of an inch from the meatus, and which contracted the urethra about one-fourth of its calibre.

On learning that all ordinary treatment in his case had failed, the operation of circumcision was recommended. The recommendation was accepted; the operation was performed, and the stricture also was divided. His mental condition immediately began to improve; his seminal loss was evidently less, and with occasional injections over the seminal ducts, together with treatment very much milder than that to which he had been subjected, he gradually recovered his strength, became more cheerful, and finally made an apparently complete recovery. It was Dr. Otis's opinion that redundant prepuce, associated with seminal loss and sexual weakness, was very frequently overlooked, and failed to receive the attention which its real importance required. He had found it a particular element in producing a melancholic state of mind.

It was the Doctor's opinion that, when such a condition existed, a long prepuce and sodden condition of the glans, there was a nervous loss occasioned, a leading off of some nerve-power, as it were, by some abnormal communication; that there was a positive and constant nervous loss which those patients underwent; that such loss was arrested by the means already mentioned; and that it was the correct and scientific manner for affording relief, from the fact that the conditions, mental and otherwise, were promptly improved by such procedure.

The Academy then adjourned.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting, May 4, 1877.

Dr. Charles M. Allin, President, in the Chair.

THE THERAPEUTICS OF HEADACHE.

Dr. Eugene Dupuy addressed the Association upon the above subject; restricting his remarks to *migraine*. Such headache appeared in the human species, manifesting itself in some and not in others, because the membranes of the brain in the neighborhood of the pons were in a state of chronic preparation for its development. Although the headache was not continuous, the condition was there necessary to its development after the action of some exciting cause. The condition indicated was a moderate inflammatory state or a severe congestion of the meninges about the pons. The headache usually showed itself after gastric disturbances of various forms, after improper use of alcohol, etc. Affections of the liver had the power to arouse the latent influence into action and so develop that form of headache. Fatigue or overwork might be exciting causes.

Such headaches never appeared spontaneously.

MEANS FOR ARRESTING HEADACHE.

It was believed to be possible to cut short the attack, to destroy it altogether, by resorting to some one of the following measures:

The means which might succeed in one case might fail in another. The most successful means were those which acted in a reflex manner. For instance, irritation of peripheral nerves, such as might be brought about by introducing alcoholic liquors, like brandy, or strong snuff into the nostril upon the side corresponding with that to which the pain was referred, would check the headache. In other words, irritation of the mucous membrane of the nose could be resorted to with benefit. The remedy to which special attention was directed was

CARBONIC ACID GAS

thrown against the nasal mucous membrane in a jet sufficiently strong to produce a marked impression. Such an exhibition of the gas seldom failed to remove the pain within two or three minutes after its application. A sharp occipital pain was produced in those cases in which the remedy was to afford relief, so that the failure to develop such pain was regarded as a warrant for the second introduction of the gas. In the headache symptomatic of fever or the headache of hysterical persons this remedy did not succeed.

Another remedy believed to be very efficacious in the treatment of an attack of *migraine* was the

POTION OF RIVERIUS,

to which was added bromide of potassium. The potion consisted of citric acid and simple syrup, and bicarbonate of potassa and water. It was an effervescing mixture, and was recommended to be administered in alternate tablespoonfuls, allowing the effervescence to take place in the stomach.

Those were the chief means mentioned for checking the attack of sick headache, and the mode in which they acted was to remove the irritation from the tract of the middle encephalon, where the roots of the fifth nerve had their origin. The cause was an alteration of nutrition, especially in the way of congestion, brought on by irritation of the meninges. The substances recommended produced their good effects by arresting the influence exerted by that morbid state.

TREATMENT PROPER.

No rule could be given with reference to treatment during the interval between the attacks. The treatment should be directed towards producing changes in the nervous centres mentioned. The exhibition of arsenic to such an extent as to produce slight œdema of the lower eyelids would sometimes remove the attacks for a long time. It was believed to be also necessary to give belladonna at times sufficient to produce its physiological effect. Occasional mustard plasters to the nape of the neck and the use of mild aloetic aperients were recommended. The cannabis indica had a strong curative effect upon the form of headache under consideration. It might with advantage be alternated with valerian or tannin. The rheumatic, gouty, and syphilitic diathesis must be studied, and appropriate remedies administered.

Dr. E. C. Seguin referred to one method of combating headache which had not been mentioned by Dr. Dupuy, and that was the use of paullinia powders or their equivalent, the elixir or fluid extract of guarana. When the patient awoke in the morning with a feeling as though a headache was coming on, he should take half a powder or a drachm of the fluid preparation, and repeat it in the course of an hour if relief was not obtained by the first dose. The first dose should be taken as early as possible.

Dr. Seguin remarked that he did not hesitate to use hypodermic injection of atropia and morphia, one-hundredth of a grain of the former combined with from five to fifteen minims of Magendie's solution of morphia, when the pain was severe.

With respect to the treatment of the disease in the interval, he had seen excellent results follow the administration of one-half grain of the solid extract of cannabis indica to an adult male daily, and one-third of a grain for an adult female, and continued so as to keep up the continuous effect of the drug for a long time. With regard to the nature of migraine, Dr. Seguin firmly believed it to be a neurosis, and not an expression of appreciable organic change. That view was regarded as more tenable than the one advanced by Dr. Dupuy. He was not able to understand how the patients could be perfectly well, as they were in the interval, if the headache was dependent upon a subacute inflammatory action, or truly great hyperæmia of the membranes of the brain. It would seem as though there would be, were such the case, a certain amount of morbid manifestation after the attack. The theory also failed to explain why the pain was as localized as it was, and also why, with congestion of the meninges, there should be no facial pain, the pain of migraine usually being cranial. Another peculiarity of migraine was that it was periodical in its appearance, and had a close alliance to epilepsy. Epilepsy and migraine were very apt to be associated, and in some attacks of sick headache there were almost epileptic manifestations.

Dr. Dupuy replied with reference to the use of hypodermic injections of morphia and atropia that, in his experience, they had almost invariably been followed by vomiting, which kept the patient sick an extra day; hence, he did not recommend their use. With regard to paullinia, it was at one time very popular as a remedy for the cure of headache, but he was sceptical regarding its real value. It checked the headache indeed, but, according to his experience, was not nearly so certain to do so as the remedies which he had mentioned. With regard to the existence of subacute inflammation of the membranes of the brain being consistent with the enjoyment of apparently perfect health, cases were exceedingly numerous in which such was the case, and as an illustration reference was made to epilepsy. In that disease there was found thickening and evidences of subacute inflammation of the membranes at the base of the brain, and yet the patients were bright and intellectual during the interval between the attacks.

Dr. G. M. Beard was inclined to doubt the soundness of Dr. Seguin's view regarding the relation existing between epilepsy and sick headache. Take, for example, one hundred cases of sick headache, and probably not more than one out of fifty had any relation to epilepsy whatever. The families were so rare in which both epilepsy and sick headache were found that it could hardly be made available as an argument in favor of the neurotic theory of the disease. It was pretty clear to Dr. Beard's mind that sick headache was a safety-valve to the system, and that those who had the attacks should be thankful for them. They were believed to be vicarious, and acted in the way of preventing the development of some more serious trouble. For cases were not unfrequent in which the sick headache had left the patient, and been followed by a more serious disturbance, like apoplexy.

With regard to treatment, caffeine had, in his hands, given more satisfactory results than the paullinia.

was administered in that period of indefinite misery just before the attack came on.

From fifteen to twenty grains of muriate of ammonia in water had sometimes worked as favorably as the caffeine.

A combination of carbonate of ammonia, caffeine, and elixir of guarana sometimes acted favorably when neither of the remedies mentioned were of service, administered alone. He regarded the remedies mentioned as much better than hypodermic injections of morphia and atropia; the results did not seem to be satisfactory when the injections were employed, and there was greater liability that the attack might return.

After some further discussion relating to the pathology of the affection, the Association adjourned.

Correspondence.

MEDICAL MATTERS IN CHICAGO.

THE COMING MEETING OF THE AMERICAN MEDICAL ASSOCIATION—THE PROSPECTIVE PHARMACOPŒIA—WOMAN DELEGATES—THE NEW DISCOVERER OF ANÆSTHESIA.

(From our Regular Correspondent.)

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—PREPARATIONS for the forthcoming meeting of the American Association are approaching completion. The local committee of arrangements have for some weeks past been busy looking after the various details. The meetings of the association are to be held in Farwell Hall, a place very commodious and central. This hall is large, has a large elevated platform, and a wide gallery on three sides of the room. Perhaps no better could have been chosen for the general meetings. But these yearly sessions of the association are always unpleasantly near failures—if indeed they are not now getting regularly to be such—if proper places of meeting for the several sections are not provided. This time six rooms are provided for the use of sections, all near by the main hall.

The entertainments as so far developed will consist solely in receptions at their residences by a number of our citizens in and out of the profession. On one evening Prof. Ross, Mr. Chr. Hotz, and Mr. Craine, all of the "West Side," will receive; another evening, Prof. Isham and one or more of his neighbors of the "North Side" will do the honors, while the third evening will find the members entertained by some friends of the "South Side," chief among whom will be Prof. Roler

There has been some talk of an excursion over the Northwestern Railroad, to the company of which Prof. Isham, one of the Committee of Arrangements, is surgeon, but the committee will probably conclude that men coming, many of them, a thousand miles by rail to attend the meeting will hardly be entertained by a further ride on the cars, even though it be called an excursion. Besides, the members of the committee are all of them men who believe that Chicago is such a phenomenon that no sight-seeing outside can at all compare with that which is offered within her limits.

The expectation of a lively time in the Association over the resolutions of Dr. Squibb, regarding the Pharmacopœia, seems to be hereabouts quite general. For the interest of the discussion, however, I regret to say the opinions one hears expressed are nearly one way. While it is strongly hinted that one Philadelphia doctor is making annually out of the publication of the Pharmacopœia, under its present management, some thousands of dollars, and while the motives of Dr. Squibb are never called in question, nor an unkind word uttered about him personally, the belief is that his scheme to *assume* the Pharmacopœia is impossible of accomplishment; that it is so thoroughly impracticable, if not in its nature (not its intention) impertinent, that the Association will make short work of it. However, the temper of the body may be wholly different from what these opinions would suggest, and Dr. Squibb may gain authority to publish a second United States Standard. It is impossible to foretell the action of such a mixture as the American Association is getting to be. A strong appeal to feeling under the right circumstances and at the right time, and our heads are gone. The action of last year will be reversed, to be again changed next year under a different set of circumstances.

The history of the question of woman delegates illustrates this fact. Half a dozen years ago the petition for the admission of delegates from a body that *might* some day send a woman was rejected almost unanimously. Again and again this position was reaffirmed. Last year, with the woman on the spot to look her brethren in the face, and the great body of men voted with an affirmative that was vociferous and nearly unanimous, not to refuse her registry. Apropos, Rhode Island is to send as one of her delegates this year a talented woman, while a number of Western delegates are women. Verily, the ice is broken. The Illinois State Society is to be tried for sending a woman delegate to Philadelphia, and the differences between the rival associations of Arkansas, each claiming to be *the* State Society and each demanding to be admitted to representation as such, will have to be settled in some way at this session. The claim comes with more than plausibility that on the latter of these questions the action of the Association last year was inconsistent with its previous action, if not entirely arbitrary and unjust.

Log-rolling has already been begun to determine who shall be the next president. Quite a number of the delegates from the Northwest believe that the Association would honor itself, no less than the city of Chicago, by electing either Prof. Moses Gunn or Prof. Byford; there may be other candidates, but we have not heard of them.

The article of Dr. Marion Sims on the Discovery of Anæsthesia, published in the May number of the *Virginia Medical Monthly*, has just been distributed here. Dr. S. claims, and with the documentary evidence at his back, that Dr. Long, of Georgia, is the first discoverer of the great boon.

He proposes that the whole profession of the country unite in asking Congress to appropriate one hundred thousand dollars to be equally divided between the families of Long, Wells, Morton, and Jackson. Does Dr. Sims intend springing this question at the forthcoming session? The wide distribution of his article at this time is suggestive in this direction. It will certainly do no harm to ask Congress to do something—that is, it will not harm Congress or the country. The national legislature has been often asked to do things and many things; some of them it has done—perhaps it has done as many things the country has not asked as that it has demanded. But if the Association asks continually for things that are certain to be disallowed, it weakens its influence for those measures that really need Congressional aid and sanction.

But why so beneficently pension the families of

these four men who deserve praise? According to Sims's own showing, the families of Humphrey Davy, Wilhite, and Drs. Warren, Hayward, and Bigelow are as deserving of pension. As one reads the history of this great discovery he is impressed with the truth of the old notion that great discoveries come by the progress of knowledge, not by the acts of single men. See what a number of men had actually found anæsthesia without being greatly conscious of it! What a hard time this great child had in being born! Perhaps the difficulty was in being adopted, for Davy in 1800 told the world all about it. What have these claimants added to the work of the English chemist? Nothing but that they took his thought just as he gave it and used it, and the masses were astonished and blessed. If these men had never lived, the world's progress had made it inevitable that soon, toward the close of the first half of our century, great numbers of other men would take up and use the idea of Davy. Why not pension all these men who would have used anæsthesia had not the four named lived? There is one reason surely, because only these men, —three of them—have identified themselves in their early connection with the new measure, by their bitterness toward each other, and their wholesale denial of each other's claims. All Dr. Sims says of the value of anæsthesia is more than true. But we cannot pension the families of all the men who do noble things.

* *

CHICAGO, May 15, 1877.

ROTARY LATERAL CURVATURE, AND A QUESTION OF PRIORITY.

THE following correspondence will explain itself:

"1,503 SPRUCE STREET, PHILADELPHIA, May 15, 1877.

"MY DEAR DOCTOR SAYRE:—I have read with deep interest your remarks made before the Surgical Section of the New York Academy of Medicine, on 'The Treatment of Rotary Lateral Curvature of the Spine,' as reported in THE MEDICAL RECORD for March 31st.

"While expressing my appreciation of your courteous acknowledgment of my own agency in the introduction of 'suspension' in the treatment of spinal affections, and my extreme gratification that a means which I esteem of so great importance, and for which I feel a certain degree of responsibility, should have commended itself so entirely to your mature judgment, allow me to correct an error into which you have unintentionally fallen, and for which I am probably myself to blame.

"In a demonstration of my mode of employing this method, before the Surgical Section of the American Medical Association at the Philadelphia meeting last summer, which, you may remember, I introduced in connection with your valuable paper on the plaster-of-Paris dressing in Pott's disease, I alluded to the fact that Prof. Mitchell had warmly advocated the use of direct extension of the spinal column by suspension, and had met with distinguished success in treating spinal curvatures in this manner. I possibly failed to make it clearly understood that with him the suspension was purely passive. He did not, as you say, 'cause the children to suspend themselves.'

"Whatever of merit there may be in the added idea of *self-suspension*—converting the passive into an active exercise, contributing to the vigor of the thoracic muscles and development of the thoracic cavity, and at the same time placing the force entirely under the control of the patient—I must claim for myself. My revival of Dr. Mitchell's system of suspension dates back to the year 1865, and was given to the profession in 1867, in a little work entitled 'Contributions to the Pathology, Diagnosis, and Treatment of Angular Curvature of the Spine.' My experiments in *self-suspension* began about the time of the publication of this volume. My first public demonstration of it was made before the Medical Society of the State of Pennsylvania at its meeting in Philadelphia in June, 1870. The lecture then delivered, which was clinically illustrated by three patients who had been successfully treated in this way, appeared in the Philadelphia *Medical Times* for November 15, 1870 (of which I take the liberty of sending you a copy), and was reproduced in a short treatise which I published in 1872, under the title of 'The Correct Principles of Treatment for Angular Curvature of the Spine.'

"Although my object at that time was especially to call attention to the value of this method in spinal caries, I had already used it extensively in true idiopathic lateral curvature, as will be gathered from the following statement at the close of the lecture:

"'This mode of treatment is equally applicable to lateral curvature. In the incipiency of that affection, indeed, it may unaided be adequate to work a cure. By causing the patient habitually to take hold of the higher handle with the hand corresponding to the depressed shoulder, that shoulder is thus, for the time being, elevated, and its muscles are thrown into more powerful action than those of the opposite side, while the curve of the spinal column, if not too rigid, is entirely reversed, and under any circumstances diminished.'

"I think, by the way, that you will find this suggestion of the unequal heights of the hands, which I do not see any allusion to in your remarks as reported, a valuable one.

"Your demonstrations of the increased lung capacity and increased height are as striking and conclusive as they are original. I have applied your plaster-of-Paris jacket in two cases of spinal caries lately (one of them an adult on the brink of the grave, after six years of disease, accompanied much of the time with profuse suppuration), and in both with marked success.

"Congratulating you heartily on this valuable contribution to our art, I am,

"Yours truly and fraternally,

"BENJ. LEE.

"To LEWIS A. SAYRE, M.D., *Professor of Orthopædic Surgery, etc., Bellevue Hospital Medical College*, New York."

"285 FIFTH AVENUE, NEW YORK, May 17, 1877.

"MY DEAR DOCTOR:—I sincerely regret that I should have done you any injustice in my 'Report on Rotary Lateral Curvature' before the Surgical Section of the New York Academy of Medicine. It was altogether unintentional, I assure you, as I was not aware that you had *modified* the plan of Dr. Mitchell by *self-suspension*, which I think the most important part of the treatment, and shall hereafter give you full credit for being its originator.

"I was unfortunately absent from the meeting in Philadelphia when you made your demonstration, and I understood you to say afterwards, when we were talking over the matter, that you had got the idea from Dr. Mitchell, and in this way I was led into the error, not knowing that you had modified his plan.

"Your paper in the *Medical Times* of 1870 was published when I was abroad, and I unfortunately had not seen it until the copy you sent me to-day.

"For the privilege of making this correction, which I do most cheerfully, I am very much obliged.

"Yours very truly,

"LEWIS A. SAYRE.

"DR. BENJ. LEE."

CATHETERISM IN PROSTATIC RETENTION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In THE MEDICAL RECORD of May 5th, page 288, Dr. E. L. Keyes, speaking of the vertebrated catheter, says: "This instrument is not without danger, especially in the hands of a patient." And he gives an instance in which "an old man had long used it upon himself, but the chain had broken in two instruments, leaving all the links in the bladder, and still the patient wanted another one."

It is altogether probable that these two instruments were not properly made. Nevertheless, when made in the most perfect manner, the vertebrated catheter, as Dr. Keyes has said, and as I have myself acknowledged (RECORD of January 1, 1873, page 6), is not without danger. There is a certain amount of danger attending the use of any catheter. But the vertebrated instrument is, doubtless, more liable to break than any other variety in use, unless it be the Jaques catheter, which is altogether too brittle in its texture to be used with perfect safety. The dangers attending the use of the vertebrated instrument do not necessarily appertain to the instrument itself, but they are the result of faulty manufacture or of careless use. Every instrument should be made of pure silver, and the material should be thick and heavy. The chain, which is the dangerous part, should be made from large silver wire, and it should be securely anchored in the beak. The rod should be secured upon the edge of the tube at the pavilion by a simple transverse arm, and a movable cap employed by which this arm is made fast. Each instrument should be provided with its own special case, in which it is always kept, in the same manner as the hypodermic syringe has its own proper case, for convenience and for safety. The case for holding the vertebrated catheter should be nine inches long, an inch and a half wide, and an inch thick. The space within should consist of two parallel grooves, one to hold the shaft, and the other to hold the links, the chain, the rod, and the cap. This case is not only very convenient for carrying, but it compels the surgeon to take the instrument apart, and put it together again, every time it is used, during which processes he should always be in the habit of inspecting the reliability of the chain. A case of this kind, which was made for me, in 1873, by W. F. Ford, of New York, holds the catheter which I have for my own use. When called upon to use the instrument, the links of the chain are first inspected, then the different parts are adjusted for use, and after it has been used it is properly cleansed and restored to the case again as before. By being thus careful the liability to accident will be very small.

Inasmuch, however, as we cannot prevent the faulty manufacture and careless use of the instrument, accidents must occasionally occur, unless the catheter—good in itself—be entirely discarded, which will undoubtedly be the case in the future, provided another one can be found equally good and more free from danger.

The meritorious features of the vertebrated catheter, according to my view, are:

1. The highest possible degree of flexibility of the prostatic portion.

2. The limitation of this superlative flexibility to a certain requisite range.

3. The rigidity of the shaft, and the longitudinal stability of the whole instrument.

4. Perfect external smoothness, hemispherical beak, transverse stability and good calibre.

In respect to the first quality there is meant to be no resistance whatever to the lateral instability of the beak, and the floating sections that follow it; the flexibility is meant to be free from even the least restraint. In respect to the second quality, it may be illustrated by reference to some of the attributes of nature. Take, for instance, the spine. Our vertebral columns have the most easy and delicate flexibility possible within certain limits; but, beyond these limits, there is a check. So in the vertebrated catheter, at twelve different points perfect lateral freedom is allowed for a little distance, but no further; and this check prevents the beak from turning backward, and the instrument from doubling on itself. The other virtues of the instrument depend mainly upon the intrinsic qualities of the silver itself.

The fault of the soft rubber catheter is, not that the prostatic portion bends too easily, but that it bends too much. The other portions of the instrument bend too easily; and the whole instrument has insufficient longitudinal stability. The extreme flexibility of the entire instrument, however, becomes a benefit, after the catheter is once introduced, for then it allows the anatomical parts to assume their natural position. Dr. Cowan, of Danville, Ky., was the first to make known a remedy for these defects. He invented and published (*Am. Jour.*, April, 1874) two modifications of the soft rubber catheter, viz.: the permanent use of a compact wire coil in the interior, and the employment of a watch spring stylet. He tested these modifications and found them to be of practical utility.

With a similar purpose in view, Dr. Otis, of New York, has called attention (MEDICAL RECORD, April 21, 1877) to a stylet for this catheter, designed to abridge the flexibility of the prostatic portion, and virtually to nullify, during introduction, the flexibility of the remainder of the instrument. This new stylet, which he names the prostatic guide, consists of a slight steel rod, eight inches in length, tipped with a flexible portion, of a length of five inches, formed by a spiral ribbon, with a solid beak. He has had several opportunities of trying this device, and has thus far found it to work admirably. In theory, this stylet approaches very closely to my idea of what is required, and I shall embrace an early opportunity to make trial of its merits. Dr. Keyes, on his part, says that, for a couple of years, he has been using as a stylet for this catheter a twisted rope made of one central and eight encircling very fine wires, and this he has found to do all that was required. The action of this stylet must be very similar to that of the coil suggested by Dr. Cowan, as the mechanism is about the same, and the fact that it has been serviceable in use adds to our store of evidence that some such device is needed to supplement the virtues of the soft rubber instrument.

But we have reason to believe that, with respect to catheterism, there are two classes of prostatic retention. In one class the urethra is only characterized by increased length, and by some abnormal curves that do not reach the nature of a right angle or a *cul-de-sac*, and in these cases a proper flexible instrument will pass into the bladder without resistance. In the other class the abnormal curves are tantamount to a right angle, a projecting shelf, or a *cul-de-sac*, and here there is a physical impossibility to the advancement of

the beak of the flexible catheter; but a suitable rigid instrument, in skilful hands, will generally succeed. A few exceptional cases of this second class may, in the present state of our knowledge, foil every effort at catheterism, and call for the aspirator.

For the cases of this second class the common gum elastic catheter, with a suitable stylet, is the instrument to be used, and very much will depend upon the particular curve given to the catheter by the stylet. In the *American Journal of the Medical Sciences* for July, 1876, I have made known a special curve, which has enabled me to succeed in three very difficult cases where all other expedients failed. This whole subject invites still further study, and, doubtless, the future will furnish still other improvements, in both the flexible and the rigid catheters, employed for the relief of prostatic retention. T. H. Squire, M.D.

Elmira, N. Y.

UNUSUALLY UNPLEASANT EFFECTS OF SULPHATE OF QUINIA.

To the Editor of The Medical Record.

Sir:—I have had three patients, all ladies, with whom the sulphate of quinia has produced peculiarly unpleasant effects.

Very soon—usually within half an hour, in one case almost immediately—after the medicine was taken the face became suffused with an erythematous eruption, and a tingling, itching sensation, very severe and distressing in its nature, followed and extended over the body and extremities.

The effects produced in the three cases varied somewhat, but mainly were identical with the symptoms of *urticaria ab ingestis*.

Each person thus affected was born and grew to womanhood in the Maumee Valley, Ohio, a very malarious region, where they had, early in life every year, taken fully the average quantity of the medicine for such region with the usual good effect.

In case first, the peculiar effect was first experienced just after her second childbirth, about twelve years ago. Since that time she has resided five and a half years in Milwaukee, Wis., where her physician, not knowing her acquired idiosyncrasy, or being incredulous, desired to test it, prescribed a disguised preparation of cinchona bark in tonic doses, with the same result. After her return to the Maumee Valley—six or seven years since—I have at long intervals prescribed the various preparations from the barks unknown to her, and invariably with the same result, the less active preparations being the more slow in their effect. In this case nausea, vomiting, and great gastric distress followed the cutaneous irritation.

In case second there was produced considerable œdema with wheals, ending with desquamation. The idiosyncrasy first manifested itself in this patient four and a half years ago, and has recurred since with the use of the medicine.

Case third was an unmarried woman, twenty years of age, with whom the first unpleasant effects were observed about three years ago. With her the cutaneous eruption and irritation were not so severe as with the others, but the pulmonary oppression and constriction of the throat were the more prominent symptoms.

This patient resided about twenty miles from my office, and was lost sight of after a few visits.

In all of these cases the severe effects lasted several hours, and generally considerable annoyance was experienced during two or three days.

These ladies have enjoyed average good health, have never suffered any particular disease or irritability of the stomach or cuticle, nor has anything ever produced the same effect as the cinchona barks and their alkaloids, the peculiar action of which must be ascribed to an acquired idiosyncrasy.

Whether it will prove permanent or not in the cases where it has continued several years, may never be known, as the ladies declare that no consideration will induce them to take another grain of the medicine which has caused them so much suffering.

Charles E. Slocum.

Defiance, Ohio.

UNILATERAL ACTION OF BELLADONNA.

To the Editor of The Medical Record.

Sir:—Two interesting cases of one-sided action of belladonna have come to my notice; one in my own practice, and the other in that of Dr. David Webster. I will give them as follows:

In August of 1876, a young Irish domestic of the better class, came to the clinic complaining of tinnitus aurium in one ear. She was very nervous and excitable, being unable to tell her symptoms without bursting into tears, although she was not a weak-minded woman, and was evidently striving against her inclinations; said she felt sleepy and dull during the day, and was continually gaping; though when in bed she was unable to sleep. I found a strong venous hum over the jugular, but could distinguish no bellows murmur at the base of the heart. She was evidently, and had all the appearances of being, *anæmic* but not chlorotic.

The tinnitus in this case being marked, it was decided to try a suggestion of Dr. E. C. Seguin, that of instilling a solution of atropiæ sulphas into the affected ear. I cannot say that there were positive indications for the use of atropia, for I imagine that it would only act by paralyzing the tensor tympani and in this case there was no tense condition of this muscle observable. She was given a solution of atropiæ sulphas gr. iv. ad ℥ i., to be instilled into the ear daily. In twelve days she returned considerably disturbed in mind, saying she could not see well with the eye upon the *same side* as the ear in which the atropia had been used. It was examined and found to be strongly under the action of atropia, the other eye being normal. She was told to discontinue application to the ear, but did not again appear at the clinic.

In December, 1876, A. D——, widow, age thirty-seven, came to Dr. Agnew's clinic, at the Manhattan Eye and Ear Hospital, complaining of affection of one eye.

The history was that she had been under the care of a doctor at some dispensary in the city for trouble with her lungs; had a cough and at one time had raised blood.

About one month before she had been seized with pain in her *right* side, and upon going to the doctor was given a plaster to apply to the affected part. In four or five days after this application she began to have difficulty in seeing with her *right* eye, being the eye upon the same side of the body to which the plaster had been applied, and this difficulty had continued up to and was present at the time she was seen the plaster still remaining upon her side. Upon examination the pupil was seen to be considerably enlarged, and the eye was undoubtedly strongly under the action of belladonna, the left eye being normal.

The peculiarity of these two cases rests in the fact that in each case the drug must have been absorbed into the general system, and yet only gave this one-sided evidence of its action.

J. Oscroft Tansley.

Obituary.

PROF. CHARLES A. BUDD, A.M., M.D.

Prof. Charles Arms Budd died in this, the city of his birth, on the 17th of the present month, after severe and protracted suffering, having fallen upon the very threshold of his reputation.

The youngest son of the late Dr. Bernard W. Budd, a widely-known practitioner of "Old New York;" he was born January 16, 1832, received his baccalaureate degree in 1850 from the University of this city, and two years afterward was graduated from the Medical Department of the same institution. An enthusiastical student of the obstetrical art, he was elected, at quite an early period in his career, a member of the faculty of the New York Medical College, and soon took rank as an able and attractive lecturer. The charter of this college having been surrendered, he accepted a corresponding position in the University Medical College as successor to Prof. Bedford, and held the same until the past year, when failing health compelled his retirement to the grade of Emeritus Professor.

Six years ago, while crossing the Atlantic, he was thrown upon the deck of the vessel, and struck in the neighborhood of the knee. A popliteal aneurism formed, which for a long time confined him to his room. His health steadily failed from that time, and three years ago revealed an aneurism of the thoracic aorta. Since then he was a great sufferer, yet has continued manfully at his duties, both professional and collegiate. For the last year he has been very feeble, yet continued at his work, visiting his patients two days previous to his death. The immediate cause of his death was a rupture of the aneurismal sac into the pleural cavity.

Dr. Budd was a member of various medical organizations, but gave his best energies to the New York Obstetrical Society, over whose deliberations he at one time presided. An exceedingly active practice debarred him from many opportunities for distinction in his profession, especially in its literature, since he wrote not at all. Clear, methodical, painstaking, and analytical, in the lecture-room he was a favorite with his classes; quick of perception, cool in the presence of danger, and of an eminently practical mind, he was eagerly sought for in consultations, while to the profession at large he was kindly known for his quaint humor, his lively imagination, his apt anecdotes, and rare geniality. In his friendships almost partisan, generous to a fault, an apologetic critic, and in the sick-room unequalled for his welcome sympathies, but little wonder that many regrets follow after his untimely death.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 13 to May 19, 1877.

The following medical officers are ordered to represent the Medical Department at the annual meeting of the American Medical Association in Chicago, on June 5th next: Surgeon Jos. R. Smith, Surgeon W. C. Spencer, Surgeon J. J. Woodward, Surgeon J. S. Billings. S. O. 106, A. G. O., May 18, 1877.

Baily, J. C., Surgeon, To report to Com'd'g General Mil. Div. Pacific and Dept. of California, for duty in Dept. of California. S. O. 106, C. S., A. G. O.

Middleton, J. V. D., Surgeon. Relieved from duty in Dept. of Dakotah, and ordered to Mil. Div. of the Atlantic. S. O. 106, C. S., A. G. O.

Brooke, Jno., Asst. Surgeon. Assigned to duty at Greenville, S. C. S. O. 92, Dept. of the South, May 16, 1877.

Gardner, W. H., Asst. Surgeon. Assigned to duty at Columbia, S. C. S. O. 92, C. S., Dept. of the South.

Kinsman, J. H., Asst. Surgeon. Relieved from duty in Dept. of Dakota, and ordered to Dept. of the Gulf. S. O. 106, C. S., A. G. O.

De Witt, C., Asst. Surgeon. On expiration of his present leave of absence, to report to Com'd'g General Dept. of the Platte for assignment. S. O. 106, C. S., A. G. O.

Maus, L. M., Asst. Surgeon. Relieved from duty in Dept. of the South, and ordered to Dept. of Dakota. S. O. 106, C. S., A. G. O.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending May 19, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
May 12.....	0	12	77	2	26	38	2
" 19.....	0	5	103	3	52	51	2

The Question of Revision of the U. S. Pharmacopœia.—At a large meeting of the Society, after a free interchange of sentiment between the members, the following resolutions were adopted as offered by Dr. Nebinger:

Resolved, That, in the opinion of the Philadelphia County Medical Society, the propositions of Dr Squibb to modify the *period* of revision of the United States Pharmacopœia, and other proposed reforms, are deserving of careful consideration by the medical and pharmaceutical professions.

Resolved, That, in the judgment of this Society, such reforms and modifications of ancient plans can be more safely entrusted to the National Convention of the Pharmacopœia and its committee of revision than to any new organization.

Resolved, That the action of this Society be officially transmitted to Dr. John C. Riley, President of the Pharmacopœial Convention at Washington, to Dr. Bowditch, President of the American Medical Association at Chicago, and to Dr. Squibb, of Brooklyn.

Resolved, That these resolutions be also published in the *Druggists' Circular*, *Chicago Pharmacist*, *Medical News*, *Philadelphia Medical Times*, *Medical and Surgical Reporter*, *The American Journal of Pharmacy*, New York Medical Record, and *New Remedies*, as soon as possible.

Dr. Albert H. Smith presented the following resolutions, which were unanimously adopted:

Resolved, That this Society does not recognize the legal or moral right of the American Medical Association to assume the work of issuing a Pharmacopœia as proposed, nor its fitness for the work, if such right existed.

Resolved, That its delegates to the American Medical

Association be instructed to use every proper means, by their votes and influence, to prevent the consummation of the plan proposed by Dr. Squibb.

FRANK WOODBURY, M.D.,
Secretary.

—At a stated meeting of the New York Academy of Medicine, held May 17, 1877, the following resolution was adopted:

Resolved, That the New York Academy of Medicine call the attention of the American Medical Association to the defects of the present U. S. Pharmacopœia, and ask the Association either to assume the preparation and publication of the Pharmacopœia, or use its influence to secure the preparation and publication of the Pharmacopœia adapted to the wants and advances of the science of the present day.

INDIANA STATE MEDICAL SOCIETY held its annual meeting at Indianapolis, May 15th and 16th. The following officers were elected for the ensuing year: President, Dr. L. D. Waterman, Marion County; Vice-President, Dr. N. P. Howard, Hancock County; Secretary, Dr. G. V. Wollen, Marion County; Assistant Secretary, G. W. Burton.

THE AMERICAN NEUROLOGICAL ASSOCIATION will hold its third annual meeting in New York on June 6th, 7th, and 8th. The place of reunion will be announced upon the bulletins of colleges and of the Academy of Medicine, and the profession are cordially invited to assist at the sessions.

STATE MEDICAL SOCIETY OF ARKANSAS.—This Society held its regular annual meeting at Hot Springs, commencing May 1st. There was a large attendance, and numerous interesting papers were read. It would seem that the Code of Ethics regarding advertising is not observed in some quarters any more than it is in and around our own city, else the following resolution would have been entirely out of place:

"*Resolved*, That information comes to this Society, from a source which cannot be contradicted, that certain practitioners in Hot Springs are in the habit of employing paid agents to drum for them at the hotels and on the various railroads of the country. This is to be deprecated by all honorable men, and we hereby declare that practitioners who employ such agents are unworthy of the confidence of the afflicted, and any unsolicited approaches, in favor of any particular physician, should be regarded as *prima facie* evidence of incompetency and unreliability, and all such should be discountenanced."

It is needless to say that the resolution was unanimously adopted. But why not bring charges against these quacks and expel them without ceremony?

The following officers were elected for the ensuing year:

President, Dr. A. N. Carrigan, Hempstead County; First Vice-President, Dr. Pollard, of Washington; Second Vice-President, Dr. A. A. Horner, of Phillips; Third Vice-President, Dr. Drake McDowell, of Hot Springs; Fourth Vice-President, Dr. J. A. Stinson, of Jackson; Secretary, Dr. R. J. Jennings, of Little Rock; Assistant Secretary, Dr. L. R. Gibson, of Little Rock; Treasurer, Dr. A. L. Breysacker, of Little Rock; Librarian, Dr. T. E. Murrell, Little Rock.

THE CORONERS' BILL OF MASSACHUSETTS.—The bill abolishing coroners in Massachusetts has passed the Legislature of that State.

EDGEWISE DISLOCATION OF PATELLA.—Dr. Blair D. Taylor, Ass't Surg. U. S. A., Fort Rice, D. T., writes: "I would like to add another case of edgewise dislocation of the patella to your collection. Mrs. ——, æt. 36, wife of an officer at this post, stepped unexpectedly down a couple of steps, and half falling, endeavored to save herself by a violent attempt to straighten the right knee, then in a state of flexion; the result was a dislocation of the patella on its outer edge, which rested in the intercondyloid notch of the femur. I reduced it very easily by placing one hand over the joint, bending the knee as far as it would go, and then suddenly straightening it, at the same time making firm pressure with the hand on the dislocated bone. She never suffered any inconvenience from the accident in the way of locomotion, and there was no sign of inflammation or even congestion about the joint at any time subsequent to the injury."

SALICYLIC ACID IN RHEUMATISM.—Dr. S. J. Holmes writes: "I have noticed several communications in the RECORD relative to the employment of salicylic acid in the treatment of articular rheumatism, and it is corroborative evidence to me of its great value in the management of this disease.

"After its employment in a large number of cases, I have found it infallible, furnishing early in the history of each respective case complete immunity from existing symptoms, pain, heat, and swelling, and in *no* case, where the drug was employed early, have I met with the cardiac complication. In a *single* case, where it was my misfortune to be delayed in the receipt of the acid, did I get endocarditis, but am satisfied, had I resorted to it early, the patient would have escaped this complication.

"I have employed it in cases varying both in extent and intensity, and as early as the second day have found my patient free from pain and fever, with an extenuation of swelling, and upon the third or fourth day free from all swelling of joints. By its continuance for a few days I have found no propension to an immediate return of the disease.

"I am in the habit of combining it with the alkalies (usually bicarb. soda), securing thus, as an adjuvant, this reputed agent, and employing it in doses of gr. xx. three to four times per day, 'pro re nata.'

"From the success with which I have met in the employment of the 'magnum bonum,' I cannot commend it too highly, and although I have not used it in cases of erysipelas I am impressed that it will prove very efficacious in this class of cases, and shall give it a fair trial."

MONOBROMIDE OF CAMPHOR AND BROMIDE OF ZINC IN HYSTERIA.—Dr. Bourneville, who accompanied me on my visit, spoke of the various new substances which he is now trying, under the direction of Dr. Charcot, in cases of nervous disease, and especially of nitrite of amyl, bromide of camphor, bromide of sodium, and bromide of zinc. He is still very well satisfied with the effects of bromide of camphor since his first researches on the drug. It is administered largely at La Salpêtrière, in the form either of Clin's capsules or of enemata. In a great number of epileptic cases it has been found to diminish the vertigo most notably, and to diminish in a good many cases the number of fits. It has rendered considerable service in the delirium which follows the fits in epileptic mania, and has proved very useful in hysteria. I have been promised Dr. Bourneville's observations on the other drugs I have mentioned. I cannot conclude, however, without remarking that the hydropathic and bathing arrangements of such a large and special establishment as La Salpêtrière seem scanty and insufficient. This part of the hospital arrangements is so very important in the treatment of nervous affections that it is strange that the Assistance Publique does not understand the good, and even the saving, that would result from greater liberality in the supply of baths.—*Paris Cor. of Lancet.*

Original Lectures.

AN INTERESTING CASE OF CYANOSIS,

BEING A CLINICAL LECTURE

BY WM. PEPPER, M.D.,

PROFESSOR OF CLINICAL MEDICINE IN UNIVERSITY OF PENNSYLVANIA.

(Reported by SAMUEL MILLER, M.D.)

IN a recent number of this journal, a brief mention was made of the case, which will here be discussed more fully. The diagnosis was at first attended with difficulty, owing to a want of knowledge of the previous history of the patient, who is a girl of seventeen, of small size and delicate appearance, though not emaciated or cachectic-looking. She was admitted to the University Hospital on May 7th, after having been examined by various physicians, who gave different opinions as to the nature of her case. The principal symptoms are: shortness of breath, which has been marked for the past six months, being much increased by efforts or excitement; œdema of the legs and marked enlargement of the abdomen. The eyeballs are very prominent, but there is no enlargement of the thyroid gland. The mammæ are undeveloped; there is no hair on the pubes, and the menses have not yet appeared. Within the past three weeks she has had two attacks of dizziness, in which, though she did not fall, her face became purple, her hands were clenched, and she lost consciousness for an instant.

The enlargement of the abdomen being the symptom which had attracted most attention, a careful examination was first made of that part. The lower part of the trunk was enlarged and clumsy in appearance, and the lower segment of the abdomen below the umbilicus was very prominent. There was marked distention of the cutaneous veins and tenderness of the skin on pressure. On superficial percussion there was dulness over the hypogastric region, but careful percussion showed deep-seated resonance. It was evident that there was marked œdema of the abdominal walls, though the tissues were so elastic that but little pitting was caused by pressure. My colleague, Prof. Wm. Goodell, was good enough to make a careful examination of the uterus and pelvic cavity. There was no occlusion of the os uteri, the sound entering readily to the distance natural for the virgin organ. The idea of there being any retention of the menstrual fluid was thus disproved, nor was any enlargement or tumor of the uterus, or of the appendages, found. Palpation showed the presence of a small amount of free peritoneal fluid, so that it was shown that the great enlargement of the abdomen was due almost exclusively to œdema of its walls, with slight ascites. There was no enlargement of the spleen, nor any change in the size of the liver. The combination of pulmonary congestion, extensive œdema, and epileptiform attacks, suggested also the existence of organic kidney disease. A careful examination of the urine was therefore made. The quantity and appearance were normal; specific gravity, 1016; neither sugar nor albumen were present. Microscopical examination showed no tube-casts, but only some vesical epithelium and a rather large number of uric acid crystals. Besides this positive proof of the absence of kidney disease, we may add that the patient never has had scarlatina, nor has she noticed pain over the kidneys, or frequent micturition, or any change in the appearance of the urine.

A careful examination of the thoracic organs was next made. The chest presented no malformation; the præcordia was not prominent; the apex-beat was in the fifth interspace, nearly in the line of the left nipple: the impulse was extended, the area of dulness was slightly increased; no thrill was perceptible. There was no murmur audible at any point; the sounds were regular and distinct, with accentuation of the second sounds, especially at the pulmonary cartilage. Having thus shown the absence of any ordinary valvular disease of the heart, examination of the lungs next failed equally to give any satisfactory explanation of the symptoms. There was merely marked pulmonary congestion with bronchial catarrh.

The case was now subjected to more searching investigation. It was found that, although under ordinary conditions there seemed to be cyanosis, the least excitement was followed by a bluish lividity of the face, neck, and hands. This was also caused by exertion, and upon lying down would develop in a few moments. Even when quiet there is a faint bluish tinge of the fingers, and also a slight bulbous condition of their tips. When the circulation is disturbed there is a fulness of the superficial veins all over the body, and at all times, besides the enlargement of the veins of the abdominal walls, there is enlargement of those of the legs with bluish discoloration.

The mother, upon being specially questioned, stated that three days after the girl was born she became very blue, particularly her face, right arm, and left leg, and continued so during the first year. Afterwards she would occasionally become blue in the face, lips, and hand. These attacks occurred once or twice a week, and lasted from a few hours to a day. They gradually grew less and less frequent, and had not been noticed for a few years past. She was very weak as a baby, and could not walk at all until she was three years old. As she grew up, no signs of puberty appeared, as already mentioned. She had always had good food, had never been compelled to work, and frequently it had been necessary to give her tonics and stimulants. Her appetite had always been fair, and bowels regular. Six months ago, without any known cause, the abdomen began to enlarge, the feet swelled, the breathing grew short, and she was troubled with frequent cough. Her sleep became disturbed with startings, and grindings of the teeth. She has not lost flesh, and has had no hectic fever or night-sweats. At present her bodily temperature, as carefully tested at several points, is about one degree below normal. The above statements point unmistakably to the true nature of the case which is, I believe, one of organic cyanosis, dependent on some congenital anomaly in the structure of the heart, due to disease in intra-uterine life.

Cyanosis, or the blue disease, is to be distinguished from mere temporary lividity due to serious interference with the central circulation, as in asthmatic attacks, extensive pneumonia, etc. The term should be limited to those cases where the blue discoloration persists independently of any such acute interference with the aëration of the blood and with the circulation. So, too, the venous congestion of severe emphysema, or of distinctive valvular disease of the heart, is not to be regarded as true cyanosis, which is nearly always connected with some congenital malformation of the heart. About two hundred such cases have been recorded, and among the lesions found are illustrations of nearly every conceivable transposition and malformation of the various parts of the heart. In nearly every case, however, the lesion is such as to allow of the passage, in greater or less proportion, of blood from the right ventricle into the systemic vessels, while,

in corresponding proportion the blood from the left ventricle passes into the pulmonary circuit. In considerably more than half of all the cases, the primary lesion is a greater or less contraction of the orifice of the pulmonary artery, due to fœtal endocarditis. If this be slight, and occur at a late period of cardiac development, the increased pressure in the right cavities of the heart will be able to relieve itself by some blood escaping from the right auricle through the foramen ovale into the left auricle. If the contraction be greater and occur at an earlier period before the septum between the ventricles be closed, the pressure on the right ventricle will be so great that a current of blood will be forced into the left ventricle through the imperfect septum, and a permanent opening will be maintained there. The foramen ovale also will in such cases usually be fabulous; and finally, as the left heart and aorta will thus receive an excessive amount of blood, relief will be found by a portion escaping from the over-distended aorta back into the pulmonary artery through the ductus arteriosus, which will be thus forced to remain patulous. If these various anomalies, which all proceed from the initial contraction of the pulmonary orifice, are properly adjusted to each other, it is possible that no cyanosis shall occur, despite the admixture of arterial and venous blood. But if any disturbance of circulation occurs and destroys the equilibrium, the effects of the malformation soon manifest themselves. Of course, therefore, if the lesion of the heart be such as to cause obstruction in addition, the resulting cyanosis will be more severe. Some authorities have held that the essence of cyanosis is the obstruction of the central circulation, which is evidently an error; while others have taught that the mere admixture of the venous and arterial blood is all that is required. This latter theory, though more correct than the first, does not express the whole truth. It is not mere admixture, since cyanosis may result from transposition of the aorta and pulmonary artery when no admixture occurs; but it is more strictly the admission into the systemic vessels of blood from the right heart, in greater or less proportion, and, per contra, the admission into the pulmonary vessels of blood from the left heart. But, in addition, there is certainly a profound lesion of nutrition, and quite possibly a *change in the walls of the minute capillary vessels*. This anomalous state of things exists from the period of fœtal life, and exerts its injurious effects on the circulation at the time when its vessels are being developed. One of the important forces in carrying on the circulation is the normal interchange between the tissues and the blood. But we know that this cannot well occur in the systemic capillaries when the blood is but partially decarbonized; while, on the other hand, blood which is but partly venous will not properly induce the act of respiration. There must, therefore, result a refusal on the part of both systemic and pulmonary capillaries to freely transmit the blood in cyanosis; and this state of things long continued must probably result in changes in the walls and dilatation of the capillaries. The pathology and lesions of cyanosis are therefore complex, though the morbid distribution of the blood, as above defined, is the most important factor. The severity of the cyanosis and of the associated symptoms will depend on the malformation and on the interference with capillary circulation in the lungs and system. In bad cases the discoloration is intense, appears early, and persists till death. In mild cases, the cyanosis may not be perceptible to the ordinary observer, or may only appear after exertion, or excitement, as in the present case; or it even may not be present for years, till some severe disturbance of the circulation causes it to be developed, although the congenital malformation has existed all along. Cyanosis sometimes has not appeared until the age of twenty, or even forty years. The parts of the surface where it is usually most intense are the face, the lips, the hands, the feet, and the legs. The eyes may be prominent. We must note, in addition, that the extremities of the fingers are bulbous, almost like erectile tissue; and I think this is not mere congestion, but is due to actual tissue-change, with probably changes in the capillary walls. Over the discolored area the vessels may be evidently distended. Such patients are always weakly and cannot bear exposure well, because their power of calorification is poor, and the bodily temperature is actually lower than the normal. They cannot play, or work actively, bear excitement, or make exertion. Especially are the sexual characters, so closely connected with the circulation, slowly and imperfectly developed. Respiration is imperfect, and attacks of dyspnœa frequent. The heart's action is easily disturbed. Dropsy is not so common as might be supposed. In this case it is an unsually prominent symptom. It will be noted carefully that it does not occur here only as the result of mechanical obstruction to the venous circulation, since it is not much marked in the dependent parts; but I think it rather to be explained by the same impediment to the capillary circulation from the condition of the blood and probable changes in the capillary walls. There is no special disturbance of the nervous system, the peculiar attacks described in this case being rare, and probably due to sudden cerebral congestion. Appetite and digestion may be fair, and the secretions are usually normal. The blood has not been carefully analyzed; in the present case, microscopical examination showed no change in the normal proportion of red and white globules. The life of patients with cyanosis is rarely much prolonged, few exceeding the age of twenty-one years. Death occurs from some disease, such as intense pulmonary congestion, dropsy, or, more frequently, from phthisis, resulting from progressive deprivation of nutrition.

The diagnosis of organic cyanosis connected with malformation of the heart being established, it is rarely possible to determine the precise anatomical character of the anomaly. Something may be learned from auscultation, which reveals blowing murmurs in a large proportion of cases when there are abnormal apertures in the ventricular septum, or where marked contraction of the pulmonary orifice exists. In the present case the absence of such murmur, and the comparatively mild type of the cyanosis, incline me to believe in the existence of a freely patulous foramen ovale with only moderate contraction of the pulmonary orifice. In one other of the cases which I have had the opportunity of examining, there was no murmur, and yet at the autopsy a contracted pulmonary artery and an imperfect ventricular septum were found.

It is needless to say that the treatment can only be palliative. The surface must be carefully protected and all exposure to cold be avoided. So too, must excitement and severe exertion be forbidden. Marriage is highly objectionable. Careful attention should be paid to the skin and to the state of the various secretions. Pulmonary congestion should be combated by cupping, counter-irritation, and stimulating expectorants; excessive cardiac disturbance, or failure of cardiac power, are best controlled by digitalis.

Medical Society of the State of New York.—The next meeting of the Medical Society of the State of New York will be held at Albany, June 19, 1877.—Edward R. Hun, Secretary.

Original Communications.

HE CONNECTION BETWEEN CHOREA AND ERRORS OF REFRACTION OF THE EYE.

By CHARLES S. BULL, M.D.,

RGEON TO THE N. Y. EYE INFIRMARY AND TO CHARITY HOSPITAL.

(Read before the N. Y. Medical Journal Association, Friday, April 6, 1877.)

a paper read before the N. Y. Academy of Medi-ne, June 15, 1876, entitled "Chorea: Its Cause and reatment," the author advanced some views upon the usation of chorea which were new to the profes-on, and opened apparently a new field for investiga-on. Before accepting or rejecting a theory in medi-l science, the subject must be weighed carefully, and l reasons, *pro* and *con*, considered fairly. Since stening to the paper referred to, my attention has en directed to a careful examination of all the cases chorea that I could meet with. In this work I ave been very materially assisted by the kindness professional friends, who have sent me patients ffering from chorea for examination. To these ntlemen I am greatly indebted, and especially to r. V. P. Gibney, of this city, to whom I take this portunity of acknowledging my obligations. It is t my intention to discuss the subject of chorea, ther in its symptomatology or pathology, as that ould be a subject entirely beyond my province, nor all I consider its etiology, except so far as it touches on the question, whether there is any connection tween chorea and anomalies of refraction, and if , what the nature of that connection is.

The proposition formulated by the author of the per referred to is as follows: "Chorea is a func-onal disturbance of the nervous system, which may ive rise to organic lesions, and which arises from ritation dependent upon anomalous refraction of the e, and, in a very large proportion of cases, to hyper-etropia." The idea of the etiology of chorea enter-ined in this proposition is new and unexpected ough to demand a careful investigation, however uch we may be inclined to question it, and in con-dering the subject it is first necessary to examine refully into several points, before we can arrive at y satisfactory conclusion.

In the first place, the vision and refraction of each e of a patient suffering from chorea should be sted separately without atropia by the test-types and ophthalmoscope; then the ciliary muscle should be mpletely paralyzed by atropia, and a second careful amination made, before we can reach a decided inion as to the state of refraction. This Dr. Stevens ay have done, though it is not so stated distinctly each case.

In the second place, an error of refraction having en found to exist in one or both eyes of a choreic tient, the proper correcting glass should be given e patient, with directions how to use it, and all other atment directed to the chorea should be stopped; d then the effect of the glass upon the choreic mptoms should be carefully noted from time to ne.

In the next place, we should carefully examine into t direct and collateral family history of the patient, h as regards errors of refraction as well as neurotic nifestations of different kinds, with a view to the covery of any hereditary tendency.

Finally, as supplementary to the other points, we must investigate the immediate environment of the patient, as regards food, dwellings, ventilation, poverty, and filth—in fact, everything that pertains to the hygienic surroundings. These several points I have endeavored to clear up during the past eight months, the examinations having in every case been made by myself, and the course taken by the disease carefully watched in each case. These cases are 31 in number, a detailed account of which, as well as the method and thoroughness of the examination, will now be given.

Unfortunately, very nearly all the cases included in my list belonged to the very poor class of patients, and could not afford, therefore, to purchase glasses, where such were indicated by the existence of errors of refraction. Hence the effect of the correction of anomalies of refraction upon the coexisting chorea could not be followed out, except in a very few cases, and thus our ideas, as regards one of the points to be elucidated, are left in a very unsatisfactory state.

Case I.—A young lad, æt. 17. Right hemichorea for five months. Patient is under-sized, anæmic, with strumous history and cicatrices of old glandular suppuration in cervical and submaxillary regions. No rheumatism or cardiac disease. Hygienic surroundings very bad. Both parents are drunkards. One sister has Pott's disease, and a cousin is epileptic. Nothing known of grandparents.

$V=\frac{20}{xx}$. Rejects all glasses. No insufficiency of interni. Marked hyperæmia of fundus. After atropia, *emmetropia*. Treated from June 16th to August 8th by arsenic, largest dose tolerated gtt. xii. thrice daily, and by tonics. Discharged cured. No relapse.

Case II.—Boy, æt. 8. Bilateral chorea for four years, beginning in mouth and eyelids, and gradually extending over entire body. Loud spasmodic action in larynx. No rheumatism or cardiac disease. Child anæmic, but active. Hygienic surroundings fairly good. Mother hypermetropic, and a sister squints. Maternal grandfather said to be "queer," and a maternal uncle "foolish," with occasional fits.

$V=\frac{20}{xx}$, with manifest hyperopia of $\frac{1}{48}$. Insufficiency of interni of 3° for the near. After atropia, R. E. Hr. $\frac{1}{24}$, L. E. Hr. $\frac{1}{30}$. Glasses procured and worn steadily for nearly three months, without any improvement in the chorea. Subsequently cured after five weeks' administration of arsenic.

Case III.—Girl, æt. 15. Bilateral chorea began in hands at nine years of age, and soon spread all over the body, being particularly noticeable in mouth and eyelids. After four months it disappeared, but returned on several occasions, and this time has lasted five weeks. Systolic murmur at apex. Hygienic surroundings fairly good. Father is a drunkard, and one brother an epileptic.

$V=\frac{20}{xx}$. No insufficiency of interni. After atropia, *emmetropia*. After seven weeks' treatment by arsenic, iron, and cod liver oil, patient discharged cured. No return of chorea.

Case IV.—Girl, æt. 11½. Bilateral chorea began, three months before I saw her, in hands, but soon spread over face, neck, and body. No trace of any neurotic tendency in any branch of family, but child always sickly, and has never recovered from an attack of scarlet fever two years ago. No rheumatism. Cardiac action irregular, but no murmur. Hygienic surroundings bad.

$V=\frac{20}{XX}$. Insufficiency of interni of 2°. After atropia, *emmetropia*. Treated from August 1st to October 14th, 1876, by arsenic, iron, and quinine, with slow improvement, and discharged cured at latter date. No return since.

Case V.—Boy, æt. 14. First seen August 7, 1876. Right hemichorea since April, 1876; most marked in hands and fingers. Child anæmic, strumous. A younger sister has double keratitis, with few and badly developed teeth. Hygienic surroundings miserable. Mother is myopic. No rheumatism. Systolic murmur at apex.

$V=\frac{20}{XXX}$; manifest H. of $\frac{1}{48}$. Insufficiency of interni of 4°. After atropia, *hypermetropia*. Ht. $\frac{1}{30}$. Glasses not procured. Treated by arsenic and tonics, and discharged cured September 12th. No return since.

Case VI.—Girl, æt. 6. First seen Aug. 18, 1876. General chorea for seven months. Child fairly nourished, but very excitable, and has always been "nervous." Surroundings moderately good. Mother is hysterical. History of epilepsy in collateral branch of family. No rheumatism or cardiac disease. Only gained a satisfactory examination of the eyes after repeated trials.

$V=\frac{20}{XX}$. Insufficiency of interni of 5°. After atropia, *emmetropia*. Treated by arsenic for nine weeks with steady improvement, and discharged cured. No return.

Case VII.—Girl, æt. 11. First seen Aug. 23, 1876. Two months ago had acute rheumatism on right side, and fourteen days after recovery choreic movements began on right side, first in hand, then in leg, and finally in the face. Five years ago had meningitis. Cardiac hypertrophy and systolic murmur at apex. Surroundings fairly good. No neurotic tendency in family.

$V=\frac{20}{XX}$. No insufficiency of interni. After atropia, *emmetropia*. Treated by arsenic and tonics for seven weeks, and discharged cured Nov. 11, 1876. No return.

Case VIII.—Girl, æt. 12. First seen Aug. 25, 1876. Left hemichorea began four years ago, and has lasted ever since. Most pronounced in face and fingers. The left eye has a peculiar stare. Subject to repeated attacks of phlyctænular keratitis. Child is strumous; surroundings very bad. Mother is hypermetropic. No rheumatism or cardiac symptoms.

$V=\frac{20}{L}$. Manifest hyperopia of $\frac{1}{40}$. Insufficiency of interni of 4°. Small macula on each cornea. After atropia, total *hypermetropia* of $\frac{1}{30}$. Glasses not procured. Under treatment from Aug. 25, 1876, till Nov. 21, 1876, by arsenic, galvanism, potass. iod., valerian and iron, gelseminum, ether spray, etc., but all of no avail. Discharged unimproved.

Case IX.—Girl, æt. 11. First seen Oct. 2, 1876. Right hemichorea since July. Occasionally squints with right eye. No history of rheumatism, but there is a systolic murmur at base. Child anæmic and badly nourished. Father always had weak eyes, and died of phthisis. A brother has convergent squint.

R. E. $V=\frac{20}{L}$: with cyl. + 24, axis 90°, $V=\frac{20}{30}$.

L. E. $V=\frac{20}{L}$: with + 48 sph. ⊃ cyl. + 16, axis 90°, $V=\frac{20}{XXX}+$.

After atropia, *compound hypermetropic astigmatism* in L. E. and simple hypermetropic astigmatism in R. E. Glasses procured and worn ever since, but no improvement in chorea, and child steadily running down. After three months' trial, commenced with arsenic, tonics, and cod-liver oil, and child was discharged cured Feb. 11, 1877.

Case X.—Boy, æt. 10. First seen Oct. 12, 1876. Perfectly well up to July 1, 1876, when he fell off a wagon and hurt his right shoulder, and ever since then the choreic movements have been present on both sides, most marked on right. Child small, but fairly nourished. Surroundings bad. Family history good, but mother had two miscarriages at eighth month before birth of patient. No cardiac symptoms.

R. E $V=\frac{20}{LXX}$: with + 20 $V=\frac{20}{XX}$.

L. E. $V=\frac{20}{LXX}$: with + 20 $V=\frac{20}{XX}$ plus.

Insufficiency of 4°. After atropia, a total *hyperme tropia* of $\frac{1}{15}$. Glasses not procured. Treated by arsenic, and discharged cured. No return.

Case XI.—Boy, æt. 11. First seen Oct. 19, 1876 Bilateral chorea set in a month ago. Child small fo his age, but rather precocious mentally. No cardia symptoms or rheumatism. Surroundings fairly good Mother was choreic in childhood.

$V=\frac{20}{XX}$. No insufficiency. After atropia, *emmetr pia*. Treated by arsenic and cod-liver oil, and di charged in five weeks cured. No return.

Case XII.—Boy, æt. 11. First seen Oct. 24, 187 On Aug. 26, 1876, child began to complain of pain i arms and legs, and on the next day was completel paralyzed in both upper and lower extremities. R mained in this condition for eight months, and th began to get the use of his arms. As recovery a vanced, bilateral chorea developed itself, and has be well-marked for two months. No cardiac symptom

$V=\frac{20}{XX}$. No insufficiency. After atropia, *emmetr pia*. Maternal grandmother has purpura hemo rhagica, and a maternal aunt is epileptic, followi puerperal convulsions. Treatment by arsenic pr posed, but child could not attend. Has since r covered.

Case XIII.—Girl, æt. 6. First seen Oct. 26, 187 Child is strumous, and has cicatrices in cervical a submaxillary regions, with tendency to phlyctænul conjunctivitis. Two years ago had measles, and sin then health bad and nutrition very much disturbe General chorea came on in March. Has a brot with infantile paralysis. Surroundings bad.

$V=\frac{20}{XL}$. Faint corneal maculæ. No insufficiency interni. After atropia, *emmetropia*. Treated by senic and tonics, and discharged Dec. 15, 1876, cur No return.

Case XIV.—Boy, æt. 7. First seen Oct. 31, 18 Well-marked bilateral chorea since infancy. Ch has Pott's disease of lower dorsal region, and has w a brace for a year. Child strumous and nutrition b No cardiac symptoms. No neurotic tendency family, but surroundings bad.

V=$\frac{20}{xxx}$. Insufficiency of interni of 2°. After atropia, *emmetropia*. Treated by tonics, cod-liver oil, and arsenic for six weeks, but with no result. Spine sprayed with ether for two weeks, but without effect.

Case XV.—Boy, æt. 9½. First seen Nov. 9, 1876. Child is a ruddy, healthy Irish boy, who has never been ill since an attack of measles four years ago. Left hemichorea came on four weeks ago. No cardiac disease or rheumatism. No neurotic tendency in family. Hygienic surroundings good.

V=$\frac{20}{xx}$. No insufficiency of interni. After atropia, *emmetropia*. Treated by arsenic, but child eloped before treatment was concluded.

Case XVI.—Boy, æt. 10. First seen Nov. 14, 1876. General chorea began two years ago. Child small and poorly nourished. No cardiac disease. Surroundings the worst possible. Father a drunkard. No neurotic taint in family.

V=$\frac{20}{xx}$. Insufficiency of interni of 2°. After atropia, *emmetropia*. Cured by arsenic in three weeks, but chorea returned in face in February. Again cured in four weeks.

Case XVII.—Girl, æt. 6. First seen Nov. 28, 1876. Child healthy. Bilateral chorea for two months. One brother hypermetropic, also mother. No neurotic taint or cardiac symptoms.

V=$\frac{20.}{xx}$ Insufficiency of 7°. After atropia, R. E. *hypermetropia* $\frac{1}{50}$; L. E. *emmetropia*. Glasses not procured. Cured by arsenic in five weeks. No return.

Case XVIII.—Boy, æt. 10½. First seen Dec. 10, 1876. Left hemichorea for three weeks. Patient always delicate and nervous. Systolic murmur at apex. Troubled with ascarides. No family neurotic taint. Surroundings bad.

V=$\frac{20}{xx}$. Insufficiency of 8°. After atropia, *simple hypermetropic astigmatism* $\frac{1}{40}$. Glasses not procured. Treated by arsenic and tonics and santonin, and cured in five weeks.

Case XIX.—Girl, æt. 8. First seen Dec. 12, 1876. Left hemichorea since April, from which she at one time recovered, but it relapsed five weeks ago. No cardiac. Great poverty. Child small and feeble.

V=$\frac{20}{xxx}$. No insufficiency. After atropia, *emmetropia*. Treated with marked improvement by arsenic and tonics.

Case XX.—Girl, æt. 14. First seen Dec. 21, 1876. Right hemichorea for six weeks. Anæmic and strumous. No cardiac, but precocious and excitable. Surroundings fairly good. Menses appeared once four months ago, but have not returned.

V=$\frac{20}{lxx}$; with + 40, V=$\frac{20}{xxx}$. Insufficiency of 7°. After atropia, a total *hypermetropia* of $\frac{1}{30}$. Glasses not procured. Treated by arsenic and cured in two months.

Case XXI.—Girl, æt. 9½. First seen Dec. 28, 1876. Right hemichorea for three months. Subject to lumbricoid worms. No neurotic taint in family. No cardiac symptoms.

V=$\frac{20.}{xx}$ Insufficiency of 8°. After atropia, *emmetropia*. Treated by santonin without result. Cured by arsenic in four weeks.

Case XXII.—Girl, æt. 16. First seen Jan. 9, 1877. Had typhoid fever three years ago, followed by right hemichorea, which lasted several months, and then attacked left side. No cardiac symptoms or rheumatism. Mother is hysterical. Father died of rheumatism.

V=$\frac{20}{xxx}$. Insufficiency of 3°. After atropia, total *hypermetropia* of $\frac{1}{40}$. Glasses not procured. Treated by arsenic, and cured in six weeks. No return.

Case XXIII.—Girl, æt. 10. First seen Jan. 11, 1877. Left hemichorea for two years. Slight lateral curvature of spine. Systolic murmur at apex. Surroundings good. Mother hypermetropic.

V=$\frac{20}{xx}$. Insufficiency of 9°. After atropia, total *hypermetropia*, R. E. $\frac{1}{40}$; L. E. $\frac{1}{35}$. Glasses not procured. Cured by arsenic in six weeks. No return.

Case XXIV.—Girl, æt. 9. First seen Jan. 16, 1877. Bilateral chorea ever since early childhood. Three other members of the family choreic. Surroundings good. One of nine children.

V=$\frac{20}{xx}$. Insufficiency of 6°. After atropia, R. E. *emmetropia*; L. E. *hypermetropia* $\frac{1}{35}$. Glasses procured and worn for two months and a half, without improvement in chorea. Since then chorea has nearly disappeared under arsenic and tonics.

Case XXV.—Boy, æt. 6. First seen Jan. 16, 1877. General chorea for four years; brother of preceding case. Boy healthy and well developed.

V=$\frac{20}{xx}$. No insufficiency. After atropia, R. E. *compound hypermetropic astigmatism*; L. E. *simple hypermetropia*. Glasses not procured. Marked improvement under arsenic.

Case XXVI.—Woman, æt. 24. First seen Jan. 20. 1877. Had whooping-cough at six years of age, and unilateral chorea, not well-marked, ever since. Spinal irritation for last six years. Asthenopia of late. Anæmic systolic murmur at base. Sister of preceding.

V=$\frac{20}{L}$. Insufficiency of 3°. After atropia, total hypermetropia of $\frac{1}{24}$. V=$\frac{20}{xx}$. Glasses procured and worn faithfully, but no change in the chorea.

Case XXVII.—Boy, æt. 3½. First seen Jan. 23, 1877. Pott's disease of lower dorsal region for two years. Right hemichorea for last two weeks. Rheumatism in family. Had whooping-cough when two years old. Vision cannot be measured owing to youth of patient. After atropia, *emmetropia*, though examination somewhat difficult, owing to restlessness. Cured by arsenic in four weeks.

Case XXVIII.—Boy, æt. 17. First seen Jan. 23. 1877. Left hemichorea for two weeks; tall, thin and anæmic; surroundings bad. No cardiac symptoms or rheumatism. No neurotic taint in family.

V=$\frac{20}{xx}$. Insufficiency of 6°. After atropia, *compound hypermetropic astigmatism*. Glasses not procured. Marked improvement in ten days from use of arsenic. Patient then disappeared.

Case XXIX.—Boy, æt. 11. First seen Jan. 30, 1877. Two years ago had diphtheria, and ever since bilateral chorea. Attacks of transient amblyopia, with rapid nystagmus. On Feb. 20th had an epileptiform fit.

V=$\frac{20}{xxx}$. Insufficiency of 8°. After atropia, *emme-*

tropia. Passed a long lumbricoid after a dose of santonin, and since then chorea much improved.

Case XXX.—March 6, 1877. Boy, æt. 8. General chorea for four years. Child ill-developed, physically and mentally. One of twins, the other being sound in all respects. Mother has five other children, all healthy. Patient has double-scrotal hernia. Moderate exophthalmus, and eyes are set in a "stare." Teeth notched, and badly developed. No history of syphilis in mother, but father has not been examined. Vision probably normal, but child does not know his letters. After atropia, ophthalmoscope shows hypermetropia $\frac{1}{8}$ oc. utr.

Ut. $\frac{1}{8}$. Mother declined to purchase glasses for child.

Tonics, cod-liver oil, internally and externally, and arsenic ad. gtt. vii., with marked improvement in general health and chorea in course of three weeks.

Case XXXI.—March 8, 1877. Boy, æt. 14. General chorea for past four months. Child well developed, but not very bright intellectually. Mother hypermetropic. One sister has convergent squint. A maternal uncle is epileptic, and father is crippled with rheumatism, and has cardiac disease. No history of rheumatism, and no cardiac murmur in patient.

$V=\frac{20}{L}$: with $+\frac{1}{20}V=\frac{20}{XX}$. Insufficiency of 6°. After atropia, $\frac{20,}{LXX}+$ and with $+6=\frac{20}{XXX}+$.

Ut. $\frac{1}{8}$ circa by ophthalmoscope; convex six spherical ordered and worn by boy for nearly a month, but as yet no improvement in chorea. This child since cured by arsenic.

In analyzing these thirty-one cases, we find that *fifteen* (15) of them are emmetropic. *Two* are cases of emmetropia in one eye and hypermetropia in the other. *Eight* are cases of simple hypermetropia of the same degree in both eyes. *Two* are cases of unequal degrees of hypermetropia in the two eyes. *Two* are cases of simple hypermetropic astigmatism of the same degree in the two eyes. One is a case of hypermetropia in one eye and simple hypermetropic astigmatism in the other. And finally we have one case of simple hypermetropic astigmatism in one eye and compound hypermetropic astigmatism in the other. So much for the state of the refraction.

Of these sixteen cases of hypermetropia only five could be induced to purchase and wear the necessary correcting glass, that is, not quite one-third of the number. In none of the five was there any improvement in the chorea, brought about by the use of the glasses, for several months.

Of the thirty-one patients, sixteen were males, and fifteen females, being about equally divided, which does not accord with the usual statistics of chorea, as it is stated that the disease is more common among females than among males.

The ages varied from three and half years to twenty-four years, and the duration of the disease ranged from two weeks to eighteen years.

The choreic movements were bilateral in eighteen cases; there was right hemichorea in seven cases, and left hemichorea in six cases.

In twenty-four cases the hygienic surroundings of the patients were bad, the families living in crowded tenements, with bad food, and worse ventilation, and in many of them one or both parents were addicted to drink.

Among the sixteen cases of errors of refraction there were nine in which one or more members of the family were hypermetropic. In nine cases there were one or more members of the family who manifested other neuroses, such as idiocy, epilepsy, or hysteria. Signs of past or present struma were met with in nine cases, and congenital syphilis in two cases. Pott's disease of the spine existed in three cases.

Four members of one family were choreic. In ten cases there was valvular disease of the heart, with history of rheumatism in patient as well as in other members of the family. In three cases the patients had passed worms.

The family tendency to neurotic taint is well shown in the Martin family, here given:

1. Daughter, 24. H. $\frac{3}{4}$. Modified chorea.
2. " 23. Em. No chorea, but hysteria.
3. Son (died an infant).
4. Daughter, 19. Hypertrophy and valvular disease, rheumatic. Em. No chorea.
5. Daughter, 15. Valvular dis., rheumatic. No chorea.
6. Daughter, 12. Em. No chorea.
7. " 9. H. and chorea.
8. Son, 6. H. and chorea.
9. Daughter, 4. Em. No chorea.

Mother, 44. H. + Presbyopia.

In the course of the examinations into the possible causes of chorea in these cases, the subject of consanguineous marriage was considered, as this has been alleged as a cause, but in none of the cases was there any blood relationship between the parents. Huth, in in his work on *Consanguineous Marriage*, speaks of the extreme frequency of cardiac complication with chorea, and says that out of 104 cases of chorea examined, fifteen only were free from cardiac murmur and signs of rheumatism. This is a larger proportion than I met with.

In only one case among the thirty-one could I find no cause for the onset of the chorea, whether in family taint, hereditary tendency, hygienic surroundings, or sudden fright. Another point which I would like to call attention to here is the condition of the external muscles of the eye. If anomalous refraction is to be regarded as one of the causes of chorea, if not *the* cause, surely as much importance should be laid upon insufficiency of the internal or external straight muscles of the eye. There was an insufficiency of the internal rectus muscle in all the sixteen cases of chorea in which refractive errors were found to exist, but also in seven out of the fifteen cases of emmetropia and chorea. None of the patients had ever complained of diplopia, and yet insufficiency of the internal recti is a very prominent cause for asthenopic symptoms; and, if so, why not rank chorea among them?

In view of the histories of these patients, we certainly cannot regard the etiology of chorea as uncertain or obscure, whatever may be said of its pathology. Many of these cases point unquestionably to the influence of hereditary predisposition, if not to the chorea, at least to a neurotic taint, and the question of the mutual transformation of diatheses is too prominent a one in general pathology to doubt its probability. In not a few of the cases cited the chorea may, I think, be regarded as the manifestation of a neurotic taint, which appeared in other forms in the direct or collateral ancestors of the patients. The only conclusion possible, after studying the cases, is that, while the coexistence of anomalies of refraction with chorea *may* be something more than coincidental, yet they cannot be regarded as a predisposing cause to chorea. It is perhaps *possible*, I do not say *probable*, in view of the many asthenopic symptoms occasioned by uncor-

rected hypermetropia, that in a patient of weak constitution, bad health, or with unfavorable hygienic surroundings, or belonging to a family where other neuroses exist, hypermetropia or astigmatism may act as an exciting cause to choreic manifestations; but so may almost anything else in such a case. That there is no such connection of cause and effect as Dr. Stevens affirms to exist has, I think, been satisfactorily proven by the cases just cited.

A recent review of the Transactions of the N. Y. Academy of Medicine, which appeared in the *American Journal of the Medical Sciences* for April, 1877, presents the subject in its proper light, and I may therefore be pardoned for quoting it:

"How refreshing it is to the physician, who has been worrying over capillary embolism of the corpus striatum, heredity, or rheumatic diathesis, to find that the trouble is only 'anomalous refraction' after all, and the remedy is 'glasses.' At any rate, his course is clear. When he has a perverse case of chorea, he does his whole duty in the matter by giving the patient a note to the nearest eye-doctor, who then becomes responsible for the cure. So the physician is satisfied, the oculist is satisfied, and the patient is, or ought to be, satisfied; if he does not get well, he can only blame himself. But when the doctor is alone, he has a lurking suspicion that he has heard of cases of chorea which have been cured by iron—not spectacles, but bromide of iron—cimicifuga, arsenic, and tonics, and which became completely well without having their eyes 'corrected.' He also recalls the very favorable results reported by Drs. Gray and Tuckwell (*Lancet*, Nov. 28, 1876, and *Monthly Abstract of Med. Science*, Feb., 1877, p. 58), from the purely expectant plan of treatment, without any aid from medical or surgical therapeutics whatever; and, as it has been asserted on good authority that it is rare, even among what are considered healthy eyes, to find one which does not exhibit some anomaly of refraction, this complication may prove to be, after all, rather a coincidence than a cause of chorea."

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THE SO-CALLED MILK FEVER AND ANTISEPTIC MIDWIFERY.

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Having seen several articles recently published in this journal bearing upon the use of antiseptics after labor, I am prompted to give my experience for several years past, which coincides closely with the opinions held in the above-mentioned publications.

In ordinary cases of midwifery where no preventive is used, in from forty-eight to sixty hours after labor, at the time when the breasts begin to swell with milk, the pulse quickens, the temperature rises, there is headache and sweating, and often this combination of symptoms is ushered in by a chill, which is sometimes repeated.

Previous to the revolution in my ideas on this subject, I always expected these symptoms and looked upon them as the "*milk fever*," due to the rapid secretion of the lacteal fluid. I soon began to notice, however, that the train of symptoms just mentioned never commenced until after the discharge from the uterus had become decomposed and offensive, and then it struck me that the chill, fever, sweating, bore a strong resemblance to the symptoms of septicæmia and those of pyæmia developed in surgical cases. Acting upon this thought, I began the use of antiseptics—mode and manner soon to be described. Since then I have never seen in any case of obstetrics the symptoms of the so-called "milk fever," whether the secretion of milk was abundant or otherwise.

I will review briefly the *septic state* of the uterus after labor, to show that the absorption of a certain amount of septic material is a *necessity* unless prevented by proper measures. In the first place, there is the denuded surface, once covered by the placenta, meshed with large vessels and presenting every facility for absorption possessed by an open wound; secondly, the rest of the mucous membrane of the uterine cavity, being in the act of renewal and abnormally vascular, might easily absorb septic fluids; thirdly, the lymphatic system, so liable to be involved in pyæmic processes, is hypertrophied in the impregnated uterus; lastly, the remains of membranes and clots of blood beginning to decompose, can furnish a large amount of septicæmic matter for several days. Surely no one can be surprised that blood-poisoning should occur under such favorable conditions, or rather he should be astonished if it did not. On the other hand, why should the natural secretion of milk give rise to chill, fever, sweating, and general constitutional disturbance any more than the secretion of the urine or the bile. I can see no reason for the name "milk fever," except that as the fever comes on the third day and the milk does the same—"post hoc, ergo propter hoc." But, as it happens, the decomposition begins at the same time, a much more adequate cause to account for the symptoms.

My mode of procedure after labor is this: In five or six hours after the placenta has been delivered I slip a bed-pan under the woman and inject into the vagina, with a Davidson's syringe, a quart or a quart and a half of warm water containing two or three per cent. of carbolic acid, or, if the lady objects to the odor, an equivalent proportion of salicylic acid; the water washes out the vagina thoroughly and disinfects all clots remaining there. Repeat this *twice* a day for four days, then *once* for three more days, when it is no longer needed. There will be no odor to the discharge, nor will there be a symptom of fever, no matter how much milk there may be. I have never seen this treatment fail, and could multiply cases, but will give one in which the danger of septicæmia was much greater than in any ordinary case of labor. I transcribe my notes made at the time:

"March 23, 1876; Mrs. M., æt. 36; wife of an officer; fourth child. Boy, æt. seven months, first stage twenty-four hours. *Forceps.* The os was extraordinarily thick and rigid, nodulated by chronic inflammation of the cervix—in fact, was like a rigid tube; would not dilate by any means of softening beyond the size of a silver dollar. (I had no Barnes dilator.) Breech presented, but head brought down by conjoined manipulation. Labor powerless, no pains of account. Second stage, six hours. Forceps applied *above* the *superior strait* with difficulty, owing to the small size and rigidity of the os, which had to be incised. Child born dead; delivered in twenty minutes with forceps."

It would seem that a case like this, presenting an aggravation of all the usual conditions present after labor, would be unusually likely to be followed by constitutional irritation; but, notwithstanding her milk was abundant, she never had a temperature above 99°, owing to the use of carbolic acid as above indicated, and on the twelfth day she was walking about the house without having had a bad symptom. I could cite one or two other forceps cases with simi-

lar results, but there were none so bad as this, so that it is hardly necessary. I may say, in conclusion, that I have followed the antiseptic plan in obstetric cases for nearly four years, and have never known a woman to have fever upon whom it was employed. I prefer carbolic to salicylic acid, because of its greater volatility, thereby penetrating into the cavity of the uterus and disinfecting the parts more thoroughly.

Progress of Medical Science.

Recovery from Sarcoma.—Dr. S. Almström relates the remarkable case of a young man, 22 years of age, who presented himself at the hospital in Upsala with the following history:—About six years previously he noticed a very small tumor behind the angle of the lower jaw. The tumor was hard, not sensitive, and was readily movable. Its growth was slow, and caused but little inconvenience. Within a year, when it had become as large as a hen's egg, it began to increase with greater rapidity, and the general condition of the patient became bad. Symptoms of hyperæmia of the brain supervened; he was often troubled with headache and delirium, and occasional syncope after severe exertion. There was loss of appetite and emaciation, especially during the previous two or three months.

On examination, a tumor, about the size of a man's fist, was seen on the right side of the neck, extending from the ear as far as the supraclavicular fossa. The larynx was slightly displaced to the left, but quite free from attachments to the tumor. The latter was quite firm, and its surface nodular; it was immovable and apparently attached to the skin. Pressure caused but little pain. The external jugular vein, passing over the tumor, was considerably enlarged. The sterno-cleido-mastoid appeared to be included in the tumor. The right tonsil was displaced towards the median line, and very much swollen. No enlarged lymphatic glands were discovered. It was impossible to detect the point from which the tumor had its origin. The diagnosis of sarcoma was made, and an operation for its removal attempted. It was discovered, during the operation, that the attachments of the growth to the deeper parts were too extensive to admit of the successful completion of the operation, and it was therefore discontinued. A small portion only of the tumor was removed for microscopic examination. The wound was closed with sutures and Lister's method employed. There was but little reaction, and the patient made a good recovery. The subsequent suppuration was very inconsiderable, and the tumor gradually decreased in size. Every day the circumference of the neck, measured over the tumor, decreased nearly a centimetre. The general health of the patient improved, the appetite became good, the brain symptoms disappeared, and did not return even during severe bodily exertion. Six weeks after the operation, when the patient left the hospital, there was but little trace of the tumor to be discovered. The right tonsil had resumed its normal position, and was much smaller. The movements of the jaw were free, and there was no difficulty in swallowing. The case, if one of true sarcoma, is a very rare one, and has considerable therapeutical importance.—*Upsala Läkareförenings Förhand*, Vol. 12, No. 2.

A New and Simple Method for the Removal of Laryngeal Polypi.—*The Monatschrift für Ohrenheilkunde* of 1877, contains the description of a new procedure by Voltolini, by which he manages to remove intra-laryngeal growths without either special instruments or a mirror. He simply swabs out the larynx, and in so doing tears off the soft polypi. The swab consists of a flexible wire, to which is attached a sponge whose diameter does not exceed, at the utmost, one millimetre. The sponge, having previously been softened in water and then pressed out, is introduced "blindly" into the larynx, which closes upon it. No attempt should then be made to advance or press downwards until the larynx opens again. If this takes place, as is very often the case, then the swab must be passed up and down between the vocal cords. In favorable cases, when the sponge is withdrawn the polypi will be torn off. The method is only applicable to comparatively soft growths. It is thought that after the diagnosis has once been made any practitioner may be able to do the operation successfully. Voltolini gives six cases in which this simple method was pursued.—*Berl. Klin. Woch.*, 18, 1877.

The Prophylactic Treatment of Placenta Prævia.—Prof. T. Gaillard Thomas states that we have by no means reached a point in the treatment of this alarming complication of labor, where we may feel sure that we have at our disposal means to ward off the danger of death from either mother or child with any certainty, while skilful management may accomplish a great deal. In many instances the services of the practitioner are not attainable, and a fatal loss of blood may occur, or the mother, from repeated hemorrhages, is apt to come to her labor sanguinated and exhausted both in mind and body. As the only remedy, the induction of premature delivery is recommended after the viability of the child is established. As for the objection that a child who has had less than nine months of intra-uterine existence has not as good a prospect of life as one that has arrived at full term, it is urged that such would have a brighter prospect when dependent upon pulmonary respiration for the aëration of its blood than upon a crippled and bleeding placenta. For the mother the safety would be doubtless greater. Dr. Thomas believes that when premature delivery becomes the recognized and universal practice for placenta prævia the statistics of the present day will be replaced by others of a far more satisfactory kind. Eleven cases are adduced in support of this position of living children being delivered, all of the mothers, with one exception, eventually recovering, while, according to the statistics of Sir James Simpson, based upon the analysis of 399 cases, one-third of the mothers and over one-half the children were supposed to be lost, and Read computed the mortality as one in four and a half mothers, while the large majority of the children were lost.—*American Practitioner*, March, 1877.

Demonstration in Honor of Professor P. J. van Beneden.—A number of the old students of the illustrious professor of Louvain have set on foot a demonstration to mark their appreciation of the eminent services he has rendered to the cause of education and to science during the last forty years. The majority of the medical men in Belgium should take part in this demonstration. It will consist in the presentation to him of his own bust in marble, executed by the sculptor Fraikin. The presentation will take place in the latter half of the present month. It will be followed by a banquet.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE DANGERS OF CHLOROFORM.

The trial of the Rahway dentist for causing the death of Walter E. Lewis with chloroform has attracted a great deal of attention, not only on the part of the public, but of the profession. As will be remembered, last January the boy, shortly after having eaten a hearty supper, called upon the dentist for the purpose of having a tooth extracted. Chloroform (slightly mixed with ether) was administered while the patient was sitting in a chair. After a few inhalations with the napkin close to the face, the pulse began to flag, when the tooth was hurriedly extracted. The child's head then rolled to one side, and respiration ceased. The patient was left in the chair for several moments without any attempt at resuscitation, and until a neighboring physician arrived. Attempts at artificial respiration were then made, the galvanic battery applied, and all the other means usually employed on such occasions, but to no purpose.

The post-mortem examination revealed all the organs in a healthy condition. The heart was free from fatty degeneration, and was flabby; the right side contained a small quantity (half an ounce) of dark fluid blood, while the left side was entirely empty. The blood was dark and fluid. As far as could be judged from the autopsical lesions, the victim was in good health at the time of the accident. The coroner's jury brought in a verdict against the dentist, charging him with gross carelessness in the administration of the anæsthetic. The Grand Jury sustained the charge, and the case was regularly tried in the court of Oyer and Terminer. The charge was manslaughter.

The prosecution endeavored to prove that the defendant did not use the ordinary precautions in giving the anæsthetic; that he was intoxicated at the time; that not a sufficient amount of air was allowed, and that the death was directly caused by such acts of carelessness. It was shown that the child had a full stomach at the time of taking the anæsthetic, that neither the pulse nor the respiration was watched during the administration, that the tooth was drawn when the patient was in a dangerous condition, and that the patient was left in the chair after the accident for several minutes without help.

As might have been anticipated, the charge of drunkenness could not be satisfactorily sustained. The experts for the prosecution stated that it was improper to administer chloroform while the patient had a full stomach, or was in a sitting posture; that it was always the rule to examine the chest organs; and, in cases of doubt, the stomach; that a full stomach and the upright position invited accident; that a failure of the pulse and respiration demanded an immediate resort to artificial respiration.

The main argument of the defence was based upon the fact that death not infrequently occurs during the different stages of anæsthesia without any apparent cause, without any better explanation than that afforded by the vague term, idiosyncrasy. It was also proved that the defendant was quite accustomed to give chloroform, and that he administered it in the usual manner for dental operations.

The judge in delivering his charge stated that, the burden of proof resting upon the State, the benefit of a doubt belonged to the defendant. Reciting the well-known aphorism that a practitioner is only expected to exercise ordinary skill in the practice of his profession, the question was one of degree rather than kind, and was, under the circumstances, to be settled by the jury. The ruling was to the effect that a practitioner was not accountable for the death of a patient which death might have been prevented by extraordinary skill on the part of another. This was the charitable construction which the law placed upon the want of skill possessed by the prisoner. Why this should apply in the case of so dangerous an article as chloroform does not appear, more especially when it was used contrary to the rules laid down by authority.

Although it could not be proved that death from chloroform was produced as the direct result of carelessness, the presumptive evidence of such a fact was very strong. A full stomach is not of itself a cause of death in chloroform, although few medical men would be willing to run the risk of its influence as an impediment to the action of the lungs or heart, especially when the patient is in an upright position. The impaction of vomited material in the trachea is another element of danger; but as no such accident occurred in this case, the consideration of its possibility, was, for obvious reasons, not allowed. The law can really hold no one accountable for accidents which might have occurred from negligence. There must be a direct association between cause and effect. If the patient in question had died by suffocation as the the result of food in the trachea, the full stomach would have been a more important factor in the case. The absence of any positive proof that the posture, full

stomach, rapidity of administration, deficiency of atmospheric air, individually or collectively, had any positive and direct effect in producing death in this case, gave the defence a wide latitude for instilling doubt in the minds of the jury. The opinion of the medical experts was to the effect that the chloroform was carelessly administered, and that the fatal issue was thereby invited. By an oversight on the part of the prosecution, there was very little stress laid upon the neglect to revive the boy the moment the signs of danger appeared. Instead of attempting this the dentist ran for help, and when help arrived several minutes afterwards, the child was still upright in the chair. This at least does not prove the exercise of even ordinary skill in cases of danger. There was a reasonable chance that the child might have been saved if resuscitation had been resorted to at once. It is impossible to say how many lives might be sacrificed during anæsthesia, if every one followed the practice of the Rahway dentist.

The neglect to place the child in the recumbent position as soon as danger appeared, was the strongest point against the prisoner. There does not appear to be the slightest excuse for it. No one has a right to use an agent known to be treacherous and dangerous unless he is competent to exercise requisite skill in counteracting bad effects when they show themselves. If the dentist possessed such skill, he did not use it. Whatever may be said of the other circumstances of the case, the omission to perform so obvious a duty as placing the boy in a proper position immediately after the accident, and resorting to the ordinary means for overcoming asphyxia, syncope, etc., amounts, professionally speaking, to criminal neglect. But, as we before remarked, very little notice was taken of this, and the defendant was acquitted.

The result of the trial does not help to establish any new principle in regard to the administration of chloroform in dental practice. Notwithstanding, twelve intelligent men in New Jersey have decided that no fault can be found with the administration in this case, the profession at large will still hold to its settled opinions, and still lean to the safe side, declining to follow so questionable an example.

THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association will hold its next annual meeting the coming week in Chicago. Within the past few years it has so far redeemed its reputation as a useful, orderly, and influential medical society, that it commands the respect and sympathies of the entire profession of the country. The plan of its present organization, the systematic division of its labors, both executive and scientific, are as near perfection as can be expected, and are well calculated to develop the working element of its members. It is to be regretted, however, that such labors are not more widely distributed and that the individual workers are not more numerous. Time, however, will probably remedy this. With certain gentlemen the association is used as a convenient advertisement for their intellectual wares, and no session passes without some contribution from them. If some second-hand papers thus find their way into the transactions it is hardly surprising. But this evil is beginning to grow less and less, and may in the end entirely disappear.

There is no doubt that the committee in Chicago will make all suitable arrangements for the convenience and comfort of the members in attendance. The hall selected for the meeting is commodious and will serve its purpose, while the rooms for Sections will be equally convenient and suitable.

The addresses to be delivered in open session, judging from the reputation of the gentlemen chosen to deliver them, will be fully equal in value and interest to any of those of previous years. The question of the revision of the U. S. Pharmacopœia will force itself before the Association for discussion. The verdict regarding the proper course to pursue can hardly be doubted We have on former occasions expressed our opinion so strongly in favor of the advisability of a change that it is unnecessary to repeat it now. It is to be hoped that the different delegates who are charged with instructions to vote upon the measure will do so, understanding the responsibilities they assume and the important professional interests which they represent. Aside from the general subjects which may be presented under the rule, the scientific interest of the meeting will centre around the different Sections. The experiences of the International Medical Congress last year should not be lost upon the committee of the different Sections who arrange the subjects for discussion. The trouble has hitherto been that too little time has been allowed for arranging the order in which the papers should be read, and no opportunity has been given to members who might wish to participate in any discussion to prepare themselves beforehand. We wish it could be arranged by the gentlemen having such matters in charge to publish the lists of subjects in advance, as was done by the managers of the Medical Congress in Philadelphia, and still more recently by the president of our own State Society. We have no doubt that a well-digested plan having such end in view would meet with general satisfaction, and advance the interest of the association.

MEDICAL MATTERS IN NEW JERSEY.

New Jersey seems to have done good service at its capital last week, both in a medical and sanitary way. Under a recent law for the organization of a State Board of Health, to consist of the Secretary of State, the Attorney-General, and seven other citizens of New Jersey, Governor Beadle assembled the Board at the State House on the 22d. The plan of work, as laid

out by the Board, shows an earnest intent to look after the sanitary welfare of the State. Dr. E. M. Hunt, as the Secretary, superintends the work under the direction of the Board, which has in it a good share of members from the medical profession. The bill, while it gives no compulsory authority, will enable the Board to make needed investigation at present, and provides for the necessary running expenses within reasonable limits.

The New Jersey State Medical Society met on the evening of the same day. As there are no medical colleges in New Jersey, the proceedings do not abound with voluntary contributions. The President and third Vice-President are required to give an address or paper, and an essayist is always appointed on a subject assigned. These papers are generally good, and often, like that of Dr. Marsh, this year, on "Autumnal Catarrh," are of permanent value. A leading feature of this Society is a condensed report from its Standing Committee, which seeks, from the returns of the reporters for each county, to give a medical history of the State for the year. This is ably done, and to it, in the Transactions, all such clinical reports or papers that are sent by the county societies and approved by the committee are appended. As a result, the Transactions are not surpassed by those of any State save our own. From them, for the last ten years, can be selected some most valuable papers. We commend this mode of condensation to other similar societies, and shall more fully notice the Transactions of the year when published.

THE CONNECTICUT STATE MEDICAL SOCIETY.

The Annual Meeting of the Medical Society of Connecticut took place in Hartford, May 24th and 25th. The attendance was good and the usual amount of interest was manifested in the proceedings. As will be seen in our report, a number and variety of topics were discussed. The question of the revision of the Pharmacopœia was not lost sight of. Although nothing was suggested in an authoritative way, the drift of opinion is quite apparent.

The failure to secure the passage of a bill creating a State Board of Health, is not an unusual circumstance under similar conditions, but the explanation of its failure is certainly unique in the annals of medical legislation. The Committee make the following significant statement in their report:

"It was reserved for the Speaker of the House of Representatives to discover and announce to the world, as principles of government, that it is *not* the province of the State to take measures to protect health or prevent disease, and that if any body of men possessed knowledge, training, and skill, which fitted them alone to perform any services, however beneficial to the State, it was impossible for the State to avail itself of these services, as thereby an unfair discrimination would be made against the ignorant and illiterate."

It is scarcely a wonder that a legislative body, who could not be insulted by such an argument, should vote against the bill.

Reports of Societies.

MEDICAL SOCIETY OF NEW JERSEY.

One Hundred and Eleventh Meeting, May 22d and 23d, 1877.

DR. J. W. SCHENCK, OF CAMDEN, PRESIDENT, IN THE CHAIR.

(Special Report for the MEDICAL RECORD.)

This Society held its One Hundred and Eleventh Annual Meeting in Trenton, on Tuesday and Wednesday, May 22d and 23d. The President, Dr. J. W. Schenck, of Camden, presided. All the District Societies in the State were well represented excepting Sussex. There were also present delegates from the State Medical Societies of Maine, New York, and Pennsylvania.

The meeting was called to order at eight o'clock on Tuesday evening, and the Rt. Rev. John Scarborough, Bishop of New Jersey, read a portion of the Psalms and offered prayer.

After the transaction of the regular routine business, the remainder of the evening was devoted to the reading of the annual address by the President, the subject of which was "The Physician, Physically, Mentally, and Morally Considered."

The Society re-assembled at nine o'clock Wednesday morning.

DR. S. WICKES read the report of the Standing Committee:

HEALTH OF THE STATE.

The year throughout the State has been marked for the general prevalence of health. There have been no general and few local epidemics.

The reporters of the County Societies report the usual diseases of the seasons. In the southern and central counties, many cases of typhoid fever, apparently due to some infection incurred at the Centennial Exhibition. Burlington County reports a mortality of 116. Local epidemics of scarlatina and diphtheria have prevailed, with more or less virulence, particularly at Heightstown, in Mercer County, where the fatality was 28 per cent. There were 160 cases in 57 families. Cumberland County reports three cases of varioloid in those previously vaccinated, one case having already had the disease. Monmouth County, through its reporter, utters a complaint against the laity for their indifference to vaccination, and recommends a law regarding it. Morris County reports instances of the peculiar history of the epidemics of diphtheria. In some instances it has remained confined to a certain village for a long time, the neighboring villages escaping infection, though in constant communication with the infected place. Suddenly the disease migrates, leaves its previous seat, and breaks out with renewed violence in another town, where it remains as before. This phase in its history offers a very interesting field for inquiry.

TREATMENT OF WHOOPING-COUGH.

Dr. Snowden, of Camden County, notices his success in arresting the paroxysms of whooping-cough by alum.

Pneumonia was successfully treated by Dr. Whitaker, of Cumberland County, by Squibb's fluid extract of ergot, 30 drop doses every three hours, fully controlling the disease in five days. Thorough inunction of the skin by warm oil, lard or vaseline, is strongly recommended by Dr. Fisher, of Hudson, in scarlatina. It allays irritation, reduces temperature, tends to prevent sequelæ, and diminishes the danger of contagion.

TREATMENT OF ACUTE RHEUMATISM.

For the relief of acute rheumatism, salicine, 8 to 10 grains every three hours, has proved successful. For the same disease salicylic acid is much extolled by Drs. Forman and Griffith.

TREATMENT OF DIPHTHERIA.

Dr. Miller, of Morris, recommends proto-iodide of mercury in diphtheria, to be given until there is an increased flow of saliva, which attained, the tenacity of the membrane is less, and the patient relieved.

Dr. Griffith has much success in the use of guarana in nervous headache. The same observer says that chloride of calcium in many cases will absorb boils, carbuncles, indolent abscesses, felons, and threatened glandular suppurations, with as much certainty as quinia in intermittent.

CARBUNCULAR INFLAMMATION OF UPPER LIP.

Dr. Welch, of Monmouth, reports a case of carbuncular inflammation of the upper lip in a young lady. Seen on the second day of the disease, the upper lip was enormously swollen, the mucous membrane everted, bearing the deep impression of the teeth. The lip was painful, but there were no constitutional symptoms. The doctor scarified the mucous membrane, which gave partial relief, and adapted a compress wet with ice-water, frequently renewed. The treatment was successful, and he believes that the early treating such conditions in this manner will give more favorable results than other procedures have done.

POISONING BY TANSY.

The same gentleman reports a case of poisoning by the oil of tansy, taken to produce abortion. The patient, a robust young servant-girl, when seen was in violent clonic spasm, blood-stained mouth, respiration disturbed, pulseless, feeble cardiac action, and with all the signs of impending dissolution. Brandy was administered at first per anum, afterwards by the mouth, and recovery took place. The oil had been taken two weeks in small doses, and at last the patient resorted to a heavier dose. There was no abortion.

PLACENTA RETAINED OVER EIGHTEEN MONTHS.

Dr. Marcy, of Cape May, reports a case of placenta retained for over eighteen months.

PRECOCIOUS MENSTRUATION.

Dr. Craig, of Hudson, reports a case of precocious menstruation in a child four years of age, who from that age till ten menstruated regularly. At that age menstruation ceased, to return in four years, and after that she continued menstruating naturally. She enjoyed good health during the entire period. In contrast, he notices a case of prolonged menstruation in a lady now 73 years of age, who is as regular every month as any young woman.

SANGUINEOUS CYST OF SACRUM.

Dr. Pierson, Jr., of Orange, reported a case of sanguineous cyst of the sacrum: "Dr. L. died Nov. 7, 1876, in the forty-third year of his age. He was never married. Had usually enjoyed good health. His average weight for many years was about 250 lbs. He had never had any constitutional disease.

Four years previous to the time of his death, he received a fall by being accidentally tipped from the end of a table on which he was seated, striking directly upon his buttocks. He experienced considerable pain in the region of his sacrum at the time, and ever afterwards he had more or less pain and tenderness in that region, which he attributed to some injury which the bone had sustained by his fall. He was not so disabled at the time but that he could attend to his professional duties. In about eighteen months he began to have, in addition to the pain, difficulty in defecation. The fæces would pass in small lumps or tape-like forms. This difficulty increased until it became most distressing and agonizing; at times he would be several hours in relieving the rectum of a very small quantity of fæcal matter, and this would be accomplished only by walking up and down the room, or lying on the floor, resting on his hands and knees. His bowels were not relieved in any other manner for more than a year previous to his death. The tenesmus was so constant and distressing that the only way the doctor could keep about at all was by the use of opium suppositories. Retention of urine was another of his troubles, and for at least six months previous to his death the only way he could relieve his bladder was by using the catheter, or by forcibly forcing the water out by pressing with his hands upon the bladder from above. Frequent examinations of the rectum were made with the finger, bougie, and speculum, and always with negative results. All that was ever observed on examination was a fulness in the posterior wall of the rectum, a few hemorrhoidal tumors, and a small ulcer in the rectum. Had the hand been introduced into the rectum a more accurate diagnosis of the case would probably have been made; but perhaps it is well it was not done, as the hand would probably have ruptured the tumor, and fatal hemorrhage have followed. About two months before his death a tumor was observed in the lower part of the abdomen, though the doctor had insisted some time previously that he could feel one. The tumor gradually increased in size until it nearly extended from one iliac region to the other. It was smooth, round, and did not pulsate, and had much the appearance of a full bladder. Prof. H. B. Sands, of New York, saw the patient after this tumor was discovered, and gave his opinion that it was some form of neoplasm, involving the intestine and bladder. Drs. Wilmarth, Chandler, and Butteus, who were present, concurred in the opinions expressed by Dr. Sands. Dr. L. himself always insisted that there was a tumor growing from his sacrum, which caused the difficult defecation by its pressure on the rectum, and the retention of urine was due to the tumor forcing the bladder from its normal position. The post-mortem proved the correctness of his theory. His sufferings at last were unbearable, and his only relief was in the inhalation of chloroform, of which he used about a pound daily. It is not improbable his death may have been hastened by its use.

Post-mortem.—The abdomen being opened, the bladder was seen pushed entirely above the pubes and a tumor blocking up the pelvic cavity, and extending into the general abdominal cavity. It looked like a rectum distended with fecal matter. The peritoneum

extended in a fold across it, apparently bending it down. Further dissection showed that the rectum, which was spread out over the tumor, could be entirely separated from its anterior wall, to which it was connected by dense areolar tissue.

The tumor could be dissected from the anterior wall of the sacrum for the distance of two inches; below that no further separation could be made between them, without rupturing a strong membrane which was reflected from the sacrum over the anterior surface of the tumor. It was also easily separable from the sides of the pelvis. Externally, it presented a dense fibrous appearance on the anterior and superior surfaces; laterally the walls were less dense. An incision was made in the tumor and a reddish serum flowed out; the interior was found filled with dark soft clots. On pushing the finger through them it passed into an opening in the anterior wall of the sacrum; this opening, about the size of a half-dollar, communicated with a cavity in the sacrum, one inch in depth, extending upward farther than the finger could reach, and filled with clots, which were older than those in the tumor. The walls of the tumor were there, a fibrous coat varying in thickness at parts, a thin shell of bone wanting in many places, and a thin serous-like membrane which lined the bone. There were also strings of fibrous tissue stretching across the interior of the tumor. Its only contents were the serum and the clots. The coccyx and other pelvic bones were normal. The liver was fatty, but not enlarged; the ureters dilated, but other abdominal organs normal.

This case seems to be one of those cases which Stanley and others describe as sanguineous bone-cysts. Gross calls them hæmatoid bone-tumors. All pathologists seem to agree that they are non-malignant, and are frequently the result of local injury. They have been reported as having occurred in the tibia, femur, clavicle, scapula and maxillary bones. This is the only case of which I have any knowledge of the disease occurring in the sacrum.

REPORTS OF DELEGATES.

The delegates to corresponding societies made their reports, and the gentlemen present from corresponding societies were cordially and formally welcomed by the President, and each on his presentation duly responded.

THE METRIC SYSTEM.

The Committee on Metric System of Weights and Measures, reported by Dr. Oakley, appending which report is the following resolution, which was adopted by the Society:

Resolved, That this Society petition the Congress of the United States, that, after some date to be fixed several years in advance, the metric standards in the office of Weights and Measures shall be the sole authorized public standards of weights and measures.

A committee, of which Dr. E. M. Hunt was chairman, was appointed to memorialize the American Medical Association as to a National Pharmacopœia.

A NEW VECTIS.

Dr. Ryerson exhibited a new vectis which he had recently devised. He believed it had many advantages over any now in use. A full description of the instrument will appear in the medical journals very soon.

CARE OF SKIN AND PREVENTION OF DISEASE.

Dr. A. W. Rogers read a very exhaustive and interesting paper on the care of the skin as a means of prevention and cure of disease.

HAY FEVER.

Dr. E. J. Marsh also read a paper on "Hay Fever, or Pollen Poisoning," in which he reported experiments confirming those of Wyman, to the effect that the pollen of the ambrosia artemesiafolia, or ragweed, is the exciting cause of hay fever, or autumnal catarrh.

These experiments were twofold—one class demonstrated the results of exposure to the pollen, the other its wide distribution in the atmosphere.

He found that after every exposure to the influence of the pollen he experienced the well-known symptoms of the catarrh. The gentleman is very susceptible to the disease, having to seek non-catarrhal regions every year. He also found that the pollen could be collected on glasses wet with glycerine, in town and country, and at various heights from the surface throughout the flowering season.

He compares the disease to that caused by poisoning by the rhus toxicodendron—where we find the same symptoms of severe local inflammation, with little febrile movement, but more or less nervous disturbance. In both cases there is a varying grade of susceptibility, some not being affected at all, while others will have a very severe attack when exposed merely to the minute amount of volatile acid in lung poisoning, and to the minute particles of the germative matter in pollen poisoning.

They differ, in that in the one there is usually but one exposure, in the other the influence is continuous.

He cites as arguments in favor of the pollen theory Blackley's experiments on the irritant properties of the pollen of grasses, its great prevalence in the atmosphere, and its agency in the production of the English hay fever, Dr. Wyman's and his own experiments with ambrosia, the coincidence of the commencement, course and termination of the disease with the blossoming period of the ambrosia.

The existence of catarrhal and non-catarrhal regions, and the distribution of the ambrosia which is present in the one, absent in the other, the insufficiency of other assigned causes, and the local character of the disease—this last point doubted by many—he considers the true view. He considers the susceptibility to be due to an idiosyncrasy which, though constitutional, is not the disease or its proximate cause.

He further holds, with Wyman, that the effect varies in proportion when the plant grows in different regions, and that it possesses irritant power in the critical period only.

The therapeutics of the disease the doctor finds very unsatisfactory. Migration to those regions where the ambrosia is not found is the only known means of escape from the continued exposure. During the attack he recommends hypodermics of morphia, cold water and simple cerate for the eyes and nose, Espéc's cigarettes for the cough, and chloroform for the asthma.

OFFICERS ELECT.

The following were elected as the officers of the Society for the ensuing year: President, H. R. Baldwin; vice-Presidents, John S. Cook, A. W. Rogers, and A. N. Dougherty; Corresponding Secretary, Wm. Elmer; Recording Secretary, Wm. Pierson, Jr.; Treasurer, W. W. L. Phillips; Standing Committee, S. Wickes, S. Lilly, and J. L. Bodwin.

Delegates to American Medical Association for 1878: S. Lilly, E. M. Hunt, A. Clendennin, Joseph Parrish, T. F. Cullen, E. E. Bateman, L. F. Hulsey, Wm. R. Fisher, C. Skillman, N. Williamson, I. S.

Long, C. Anderson, C. B. Gordon, Geo. Teniberg, T. Terrill, P. F. Brakely; New Hampshire—David S. Smith; Massachusetts—J. Prendergast, I. B. Coleman, J. M. Hall, and T. J. Thomason; Rhode Island—O. Warner, Jos. S. Green and A. H. Hopper; Maine—I. Ryerson, G. Ballemay and F. Witmarth; Connecticut—A. D. Carpenter; New York—D. A. Currie, I. W. Hunt, L. W. Oakley and Wm. O'Gorman; Pennsylvania—H. G. Taylor, Geo. H. Larison, O. P. Garner, and Wm. A. Newell.

The next annual meeting of the Society will be held at the Monmouth House, Spring Lake.

CONNECTICUT MEDICAL SOCIETY.

Eighty-sixth Annual Convention, May 24, 25, 1877.

DR. A. W. BARROWS, PRESIDENT, IN THE CHAIR.

(Special Report for the MEDICAL RECORD.)

The Eighty-sixth Annual Convention of the President and Fellows of the Connecticut Medical Society was held in the Representatives' Chamber, Hartford, Conn., May 24th and 25th.

DR. A. W. BARROWS, the President of the Society, welcomed the delegates in a brief address, and in accordance with a regulation of the Society, presented several subjects which he deemed worthy their consideration. Among other matters he referred to the

FREQUENT MISTAKES IN PRESCRIBING AND DISPENSING MEDICINES,

and suggested that measures should be adopted whereby a better understanding might exist between the prescriber and dispenser of medicine.

THE REVISION OF THE U. S. PHARMACOPŒIA

also received attention, and although no positive opinion was expressed regarding the best course to pursue, he was inclined to lean towards the plan proposed by Dr. Squibb.

After a brief recess for the delegates from the various county societies to appoint one of their number as a member of the Nominating Committee, the Convention was again called to order and the usual committees appointed by the President.

The unfinished business of the preceding year was disposed of by the adoption of the amendment, making the Treasurer a member of the Committee of Publication.

RELATION OF DRUGGISTS AND PHYSICIANS.

There was a very lively debate on the relation between druggists and physicians, and the understanding which should exist between them.

DR. CHAMBERLAIN remarked that as there was little liability of change in the laws relating to the sale of powerful remedies and poisons, or allowing the indiscriminate repetition of prescriptions calling for narcotic, emetic, or emmenagogue drugs, whatever could be accomplished in the matter must be done by united action on our own part, and conference with the pharmacists who are willing to assent to any reasonable regulations. There should also be some method agreed upon of designating that the physician has carefully read over the prescription, and assumes all responsibility when unusually large doses of powerful drugs are called for. Often, in emergencies, large doses are demanded when the delay to verify the prescription would be fatal; inquiries of the purchaser in such cases engendered suspicion and loss of confidence. The directions plainly marked should, in all cases, accompany the prescription. We might then consider any mistakes due to negligence of such precautions as criminal.

DR. C. M. CARLETON offered the following:

PRESCRIBING DRUGGISTS.

Resolved, That we, as physicians, will not allow our prescriptions to be dispensed by any druggist who shall himself prescribe for any disease, or allow any clerk or assistant in his employ to prescribe.

In support of the resolution, he stated that the evil was one of great magnitude, both to the physician, who was thereby defrauded, and to the patient who was made to suffer from the unskilful treatment. The remedy for this lay within the power of the physicians, if they would exercise it.

DR. LINDSLEY thought that little could be accomplished by hasty action or by implied threat, and that it would be difficult to secure concerted action. He spoke of the pharmaceutical associations as composed of honorable men, and suggested a conference with them.

DR. CARLETON said that counter prescribing had been fully suppressed in Lynn, Mass., by concerted action of the druggists and physicians, and offered the following substitute for his resolution, so that it should read: "Any druggist who shall prescribe, or allow any one in his employ to prescribe, violates the proper and just relations which should exist between the physician and druggist."

After considerable debate, the whole matter was referred to a Committee on the Relations between Physicians and Druggists, who were to act as delegates to the State Pharmaceutical Convention, and report at the next convention. The subject of the revision of the Pharmacopœia was also referred to the same committee.

The Chair appointed Drs. Wainwright, of Hartford; S. H. Bronson, of New Haven; Burke, of Middletown; M. C. White, of New Haven; Chamberlain, of Hartford.

On motion of Dr. Chamberlain, a committee was also appointed by the Chair to report to this Convention concerning the proposed revision of the Pharmacopœia. Drs. Lindsley, Woodward, and Catlin were appointed.

STATE BOARD OF HEALTH.

The Committee on a State Board of Health, consisting of Drs. E. K. Hunt, C. A. Lindsley, and C. W. Chamberlain, reported the defeat of the bill drawn up by them, and expressed but small hope that the measures proposed would be adopted.

The report was accepted by a unanimous vote. Dr. Lindsley deplored the unsatisfactory state of the registration of vital statistics in this State, and the ill-considered action of the Legislature. He moved that we still continue to urge the matter; that it could not be possible that any body of intelligent men could long remain ignorant of the benefits of such a plan, or need much urging to adopt it. After some further debate, the motion to appoint a committee was passed, and the President appointed Drs. Lindsley, Chamberlain, Jackson, Knight, and Lewis Williams.

OFFICERS ELECT.

The following officers were elected for the ensuing year: President, Dr. R. Hubbard, of Bridgeport; Vice-president, Dr. C. M. Carleton, of Norwich; Treasurer, Dr. F. D. Edgerton, of Middletown; Secretary, Dr. C. W. Chamberlain, of Hartford; Committee on Matters of Professional Interest, Dr. W. A. M. Wainwright, of Hartford, Dr. H. W. Buel, of Litchfield, Dr. A. Woodward, of Franklin.

The Treasurer's report showed a balance to the credit of the Society of $207.96.

After the transaction of some routine business, the Society adjourned until 9 A.M. of the day following.

SECOND DAY.

The Society met, pursuant to previous adjournment, Thursday, at 9 A.M.

OBITUARY RECORD.

The Secretary presented the statistical record of the past year. Two honorary members had died—Dr. Walter Channing and Dr. Gurdon Buck, of New York—men upon whom it was impossible to confer honor, but who not only honored members, but the name of physician. Eight of the members had been removed by death—including one former president, Dr. Wm. Cogswell, of Plainfield—and for the most part, of those far advanced in years. Twenty-three new members have been added, making a clear gain of twelve, including in the account those who have left the State.

PRESIDENT'S ADDRESS—MALARIAL FEVER IN NEW ENGLAND.

The President, Dr. A. W. Barrows, presented the annual address, on Malarial Fever in New England, commencing with a brief historical sketch from the early chroniclers of New England. Josselyn specified fever and ague as among the diseases then indigenous in 1671. Hubbard spoke of the "seasoning" or "ague fever" in 1678 in New Haven, and warned against blood-letting as deadly. Cotton Mather and Davenport spoke of malarial fevers, especially in Connecticut. The Housatonic Valley and parts of the Connecticut Valley were affected soon after settlement, disappearing during the eighteenth century, except where the land was overflowed from dams, leaving tracts partially covered with water, or exposed at periods. Many instances of this kind were detailed, the type generally tertian. In the valley of the Connecticut, contrary to the statement of Dr. N. Smith, intermittent fever had been endemic in 1824, in Northampton and many other places. In 1831 there was an epidemic in Norwalk, affecting more than half the population, and it has been indigenous in the shore towns from year to year. From 1850 it began to be prevalent in New Haven, soon suggesting the idea of a change of diathesis, rendering quinine a much more serviceable remedy. In 1853 the disease reappeared in Fairfield Co., and still occurs sporadically. It gradually extended northward, reaching Hartford in 1872, though sporadic cases have occurred since 1856 in this county. The first cases in the city occurred in the southern portions, near the embankments of the Valley R.R. There was also a sluggish stream polluted with sewage near.

The disease had prevailed in that region, where the upturning of earth and obstruction to the natural drainage had been marked, and had already reached a point about ten miles north of this city. The appearance of the disease in various localities was traced, and local causes assigned, in many extensive upturnings of the soil, embankments for reservoirs, half-covered islands, partially dried ponds, etc. The following theories of the origin of the disease were discussed: 1st. The paludal from the exhalations of marshes. 2d. Aërial transmission of some specific contagium or spores cells or bacteria. 3d. Change of diathesis. 4th. Change of climate. Neither of these are conclusive or satisfactory; the claims of each and the objections were discussed at length without a denial of either. There are questions concerning the entire subject yet unsolved which none of the theories solve.

MEDICAL REPORTS FROM THE COUNTIES.

DR. LINDSLEY then presented the report of the Committee on Matters of Professional Interest in the State. The year has been one of unusual health. Mild epidemics of scarlet fever, measles, whooping-cough, had prevailed. The type of all diseases seems to be modified by malarial influence, and typhoid and intermittent prevail in inverse ratio. Some cases of typho-malarial occur. School hygiene was briefly discussed, the reports being very incomplete on this point. The plan devised by Dr. Lindsley of securing reports from different portions of the State has been very successful, and it was with extreme regret that the Society learned that his duties would no longer permit him to retain the position he has filled so profitably to the best interests of the Society.

The delegates from other Societies—Dr. N. A. Wersom, of Portland, from the Maine Medical Society, Dr. John W. Blodgett, from the New Hampshire Society—were welcomed by the President and presented to the Society. A letter was also received from Dr. Bradford, of Homer, New York, regretting his inability to be present.

REVISION OF THE PHARMACOPŒIA.

The Committee on Revision of the Pharmacopœia, appointed the previous day, reported that no action was advisable at present, though deprecating any that would lead to the publishing of two volumes. The report, after considerable debate, was adopted.

PATHOLOGY OF THE PNEUMOGASTRIC.

DR. J. CAMPBELL, the essayist, presented an elaborate paper on the Pathology of the Pneumogastric Nerve. The relations with the sympathetic and its obscure reflex relations were very ably presented.

Voluntary communications occupied the remainder of the session.

DR. DEMING, of Litchfield, discussed some of the relations of temperament and age in producing phthisis.

LACERATION OF THE PERINEUM.

DR. STORRS, of Hartford, presented a modification of the usual method of operating for lacerated perineum, by which vaginal and rectal lines of support were formed, and the natural contour of the perineal wedge secured without crowding the deeper portions of the laceration, requiring no deep stitches along the perineal line. He also gave the details of several successful cases of operations in vesico- and recto-vaginal fistulæ where other operative procedures had failed.

PUERPERAL MANIA.

DR. C. B. MAY presented a very valuable statistical paper on the treatment of the cases of puerperal mania which had been received in the institution at Middletown, and the comparative results obtained.

SPASMODIC STRICTURE OF THE ŒSOPHAGUS.

DR. CHAMBERLAIN then read a paper on spasmodic stricture of the œsophagus, presenting an abstract of the literature of this somewhat rare affection, and giving the details of the successful treatment of two cases.

In the absence of Dr. Halleck, of Middletown, in Europe, the Secretary read a very instructive and exhaustive paper by him, discussing the cottage plan of treating insanity.

THE POINT OF ELECTION IN AMPUTATION.

Dr. Wainwright, of Hartford, presented two interesting surgical cases under his charge. The one was that of a girl, with both legs crushed by a locomotive, afterwards amputated, and who now walked about on artificial limbs. She was under the worst sanitary influences, yet recovered quickly. The other was a peculiar case of gunshot wound of the arm, with extensive bleeding, and inability to find the ball. A very interesting part of Dr. Wainwright's paper consisted of a letter from Mr. Douglas, the manufacturer of artificial limbs, in Springfield. The Doctor had written to Mr. Douglas, to get his opinion of the proper point of operating, in order to have the best available stump for artificial limbs. The letter was rather long, and the gist of it was this: Eight inches below the knee, ten inches below the body, and, in stiff knees bent, one inch from the joint, are the preferable points.

The hour for dinner having arrived, the Society adjourned to Merritt's Café, where a few hours were very pleasantly spent in discussing the bill of fare, and in that social recreation that physicians enjoy the more heartily from the rarity of the occasions that they are permitted to leave the active duties of a laborious profession.

Correspondence.

THE COURSE OF THE MEDICAL DEPARTMENT, UNIVERSITY OF PENNSYLVANIA.

To the Editor of The Medical Record.

Dear Sir:—In your recent very full notice of the changes which are about to go into operation at the University Pennsylvania in medical teaching, occur two or three errors which we would be glad to be permitted to correct.

First, as to *preliminary examinations:* For various reasons it has not been deemed advisable to institute these immediately. But it is evident that the graded course, with examinations at the end of each year, to be successfully passed before the student can advance to the next year, will have a similar effect in eliminating those not qualified to study medicine.

Second, as to the *studies of each year:* The *first* will be devoted to anatomy by lectures and dissections; materia medica and pharmacy, by lectures and laboratory work; general chemistry by lectures and laboratory; physiology by lectures; and obstetrics by lectures, with examinations on general chemistry, materia medica, and pharmacy, at end of first term. The *second* year will include anatomy by lectures, normal histology by laboratory work, surgical anatomy by lectures, therapeutics by lectures, medical chemistry by lectures and laboratory work, physiology by lectures and laboratory, morbid anatomy by lectures, obstetrics by lectures, theory and practice of medicine and surgery by lectures and general medical and surgical clinics, with examinations at end of second year in anatomy, physiology, and medical chemistry.

The *third* year will be devoted to therapeutics by lectures, morbid anatomy by lectures and laboratory work, didactic gynecology, theory and practice by lectures, surgery by lectures, operative surgery by operations, general medical and surgical clinics, bedside instruction in medicine and surgery, practical instruction in ophthalmoscopy and electro-therapeutics, with special clinics on nervous diseases, diseases of the eye and ear, and diseases of women and children. The examinations at the end of the course are in therapeutics, morbid anatomy, theory and practice of medicine and surgery.

Finally, as to *fees:* They are, for matriculation, $5; for the first year, $140; for the second year, $140; for the third year, $100; dissecting fee, $10, but no charge for material.

Respectfully yours,

James Tyson, M.D.,
Secretary of the Faculty.

Philadelphia, May 25, 1877.

PROFESSIONAL DUTY AND SACRIFICE OF LIFE.

Dear Sir: I notice in the 342d number of the Medical Record an article entitled "Professional Duty and Sacrifice of Life," in which you express the hope that some efficient instrument may be constructed, which shall relieve the surgeon from the dangers accruing from sucking the windpipes of patients suffering from croup, after the performance of tracheotomy.

In the absence of such instrument, I would respectfully submit the following simple plan, which proved very successful in two cases of croup which fell under my notice in the Roosevelt Hospital. I took a Davisson Syringe and removed the leaden weight from the end, which rests in the basin, then applying this end to the opening, I exerted suction in the usual way and continued to exert suction till the syringe clogged; upon gently withdrawing it from the wound a long string of false membrane was brought away. Every time the syringe was used it worked well, and completely cleaned the trachea. As a syringe can always be obtained, this I think will be found a very useful means of saving the patient's life and preventing more than necessary risk to the surgeon.

Frank B. Green, M.D.

443 Gates Avenue, Brooklyn.

Medical Items and News.

Ligation of the External Iliac.—Dr. W. T. White ligated the external iliac artery, May 24, 1877, at the Presbyterian Hospital, for aneurism of the femoral, high up. This is the third operation of its kind which has been performed during three successive weeks in the different hospitals of this city. The first by Dr. C. M. Allin at the New York Hospital, the second by Prof. James R. Wood at Bellevue, and the third by Dr. White, as stated.

Library of the New York Hospital.—Dr. J. L. Vandervoort, the librarian of the New York Hospital, writes: "In 1876, *four hundred and sixteen* volumes were added to our former number, and ninety pamphlets.

"In the present year, to date, May 26th, three hundred and thirty-one volumes have been added. Our total number of volumes, exclusive of duplicates, amounts to 10,567.

"Dr. Purple, in his address, says, the *average* yearly increase has been about 125—dating from the foundation of the Library, but he said nothing about its yearly increase in later times. I spoke to him about this statement, and told him that it was calculated to do injustice. Had he expressed himself somewhat differently as he easily could have done, his statement would have appeared quite otherwise.

"I simply write this note to you to correct the statement which appeared in The Record of to-day (April 26, 1877)."

Original Lectures.

LECTURES ON FEVERS.

By ALFRED L. LOOMIS, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

(Phonographically reported for THE MEDICAL RECORD.)

LECTURE VIII.

TYPHOID FEVER (CONTINUED)—TREATMENT—TYPHO-MALARIAL FEVER—MORBID ANATOMY.

GENTLEMEN:—When I concluded my last lecture, this question was before us: Is the administration of cathartics ever admissible in typhoid fever? Quite diverse views are still held in regard to what the answer to this question should be. Recently, certain observers of extended experience have claimed that there is sufficient reason for the belief that a portion of the typhoid poison lodged in the alimentary tract may be expelled by the timely administration of cathartics, and thus the severity of the fever be mitigated and its duration shortened. Recent German writers claim that *calomel*, concerning the favorable action of which in this fever so much has been said and written, acts beneficially only as a cathartic. Those who favor the administration of cathartics, recommend their use mainly during the first week of the disease.

On the other hand, equally competent observers maintain that the intestinal changes are augmented, and rendered more extensive by the action of cathartics, that the normal course of the fever is interfered with, and that in a large proportion of cases where intestinal and peritoneal complications occur, hypercatharsis has been induced at an early period of the fever by the administration of cathartics for the purpose of shortening its duration. My own experience leads me to exercise the greatest caution in the administration of cathartics in any stage of this fever. I am confident that the routine practice of administering purgative medicines in the early stage of typhoid fever can only be followed by a threefold injury:

First. The patient is weakened.

Second. The local intestinal lesions are increased.

Third. Perforating peritonitis is more liable to occur.

The administration of cathartics as an eliminative procedure has neither reason nor experience to sustain it.

Before speaking of the management of the convalescence of typhoid fever, I will make a few general remarks on the use of anodynes for the relief of certain troublesome nervous phenomena.

I have stated to you that among the earliest, most frequent, and often most prominent nervous symptoms in this fever is headache, but it is seldom very violent or of long continuance.

Should it be severe, not readily relieved by fomenting the forehead and temples with warm water, or should it give place to active delirium, and other severe nervous disturbances, the question presents itself, shall anodynes be administered? Unquestionably, the most reliable of this class of remedies is opium.

Usually, the condition of the pupil of the eye will serve to indicate to us whether opium shall or shall not be administered. A contracted or "pin-hole" pupil may be considered to contraindicate its use, though there are exceptional cases in which opium acts favorably, notwithstanding this condition of the pupil.

Opium should be given with great caution whenever signs of cyanosis are present. In all cases of typhoid fever, it is safer to administer opium in small and repeated doses than to venture upon the administration of one large dose.

There are other anodynes which sometimes you will find of service, such as hyoscyamus, the bromides, and chloral. I would caution you against administering too large doses of chloral; the desired effect can generally be produced by ten or fifteen grains. If the first dose fails to relieve, a second may be administered at the expiration of two hours. This remedy is said to have a special value in quieting the active delirium, which is sometimes so troublesome, but my own experience in its use has not been favorable. When anodynes have failed to give relief to typhoid fever patients, who have been delirious and somnolent for days, sometimes they will become quiet and fall asleep immediately after the free administration of stimulants. Those cases in which the nervous symptoms are due to an anæmic condition of the brain, associated with a weak heart and a flagging circulation, are most likely to be benefited by the use of stimulants. In those cases in which subsultus becomes very marked and there is a general tremor, jactitation, and restlessness, I have seen most happy effects produced by the use of hypodermic injections of sulphuric ether. I would use, as an average quantity, two drachms given in injections of one drachm each, in different places.

The same watchful care should be taken of a typhoid fever patient during convalescence as during the active period of the fever.

The number of typhoid patients who die during convalescence is proportionally large. Frequently this is due to the fact that the physician has laid down no strict rules to be observed as to diet and exercise, and frequently from the non-observance of such rules.

The diet of fever patients during this period should be carefully watched. Allow your patient to eat frequently, but only small quantities of food should be taken at a time, so that the gastric juice secreted by the enfeebled stomach may be sufficient for its complete digestion. All indigestible articles of food, and those which furnish a large amount of waste, should be strictly forbidden. An apparently insignificant disturbance of the stomach, a slight vomiting, or a moderate diarrhœa occurring during the period of convalescence should be regarded as dangerous, for any one of these may induce a subacute gastritis, or lead to intestinal perforation and a fatal peritonitis. It is obvious that while the intestinal ulcers are healing, much mischief may be done by improper diet.

Notwithstanding the cravings of the patient's appetite, the diet must be restricted to such articles as milk, cream, gruels, jellies, and animal broths. Solid food must be strictly forbidden, especially meats, vegetables, and fruits. If diarrhœa is present during convalescence it is far safer to restrict the patient to milk and cream. All exercise, except simply walking around the sick-room, should be prohibited. I have had patients convalescing from typhoid fever sink rapidly after a long ride, or after indulging in some violent and fatiguing physical exercise. It is of the greatest importance that this class of patients should keep in the recumbent or semi-recumbent posture until the cicatrization of the intestinal ulcers is completed, which in some instances does not take place for two or three weeks after convalescence is well estab-

lished. If convalescence is slow, small doses of quinine, iron, and cod-liver oil are of service. They should be given after the patient has taken food.

When, during the period of convalescence, diarrhœa is persistent, the patient should be kept in bed, and some of the vegetable astringents, such as catechu, hæmatoxylon, may be employed.

In many cases it is important that you should take the evening temperature for at least two weeks after the commencement of convalescence, for by its range you will be able the more accurately to determine the exact condition of your patient.

When convalescence is delayed, so that at the end of four or five weeks the patient has not regained strength, change of air is indicated.

TYPHO-MALARIAL FEVER.

Typho-malarial fever, as its name indicates, has many elements in common with typhoid, and many which ally it to remittent fever. To the term "typho-malarial," however, a different signification has been given by different observers. By one class of observers the term has been employed to indicate the presence of malaria, and also the specific poison which produces typhoid fever.

By another class of observers the term has been employed to indicate the presence of malaria and also a *septic* poison, which differs from the specific poison that gives rise to typhoid fever.

There is still another class of observers who doubt the existence of such a form of fever, and regard the so-called typhoid element as nothing more than a "typhoid condition," liable to be developed in connection with remittent fever, and many other diseases.

The term typho-malarial is a convenient one for the first class of observers, and is one which can be employed by them without confusing the student; whereas, for the second class of observers, it is exceedingly inconvenient, giving rise to confusion, because it does not embrace the views held by them regarding the etiology of the disease.

But we have the term, and I shall employ it as one denoting a fever which is produced by the combined action of a *septic* and a *malarial* poison. As far as possible I shall use the word septic, when speaking of the poisons which are associated in the production of the disease; and the term typhoid will be reserved for that peculiar condition known as the "typhoid condition," and for the specific disease known as typhoid fever. You will meet with some cases of typho-malarial fever in which the septic element predominates, and others in which the malarial element is predominant. The preponderance of the leading features of the one or the other of these two forms of fever will enable you to determine with a good degree of certainty the course, prognosis, and treatment of each individual case. The distinguishing lines, however, between these two elements are not always sharply defined, but almost imperceptibly the symptoms dependent upon one poison become mingled with those developed by the other. Both of these elements may be modified in their manner of development and in their morbid anatomy, by the occurrence of various intercurrent complications, such as scurvy, pneumonia, etc.

Morbid Anatomy.—The changes which take place in the constituents of the blood in typho-malaria fever, so far as we are yet able to determine, are similar to those which occur in typhoid fever, combined with those which are characteristic of malarial fever; the presence of free pigment granules in the blood is often a strong point in its differential diagnosis.

In connection with these blood changes, there are more or less parenchymatous changes in the internal organs similar to those met with in other forms of fever, and in acute infectious diseases. The *liver* is increased in size, and its cut surface presents an appearance which closely resembles that known as nutmeg liver. Sometimes it presents the peculiar bronzed color of the liver in remittent fever; at other times it very closely resembles the liver of yellow fever. A microscopical examination shows free fat and more or less brown pigment granules in the hepatic cells. In most cases of this fever the *spleen* is enlarged, softened, and of an almost black color. The Malpighian bodies are prominent, and present the appearance on its torn surface of little tumors, which vary in size from a pin's head to that of a pea. The organ is rarely as much enlarged or softened as in typhoid fever. It is always the seat of more or less pigmentation.

No uniform change will be noticed in the *kidneys*, except that of hyperæmia, which will be most marked in their cortical substance.

The *lungs* at their most depending portion are the seat of more or less extensive hypostatic congestion. Splenization of the lungs is not as frequently present as in typhoid fever.

The *heart* is pale and flabby. Its muscular fibres are the seat of a granular degeneration similar to that which takes place in the heart in typhoid fever. Exsanguinated clots more or less firm may be found in its cavities, but they have nothing peculiar about them. They closely resemble those found in persons who have died from failure of heart power. They are rarely, if ever, the direct cause of death. The result of my own examinations of the intestinal lesions of this fever has led me to adopt, for the most part, the descriptions of this fever by Dr. J. J. Woodward, of the U. S. A. In fact, Dr. Woodward's investigations in this direction, may be regarded as exhaustive. That the intestinal changes of typho-malarial fever very closely resemble those of typhoid fever there can be no question; by some they have been regarded as identical, but I think, if we very carefully observe them, some very marked differences can be recognized.

As in typhoid fever, the principal and almost constant changes are to be found in and around the closed follicles of the intestinal tract. These changes are made manifest by the gradual enlargement of the follicles, which, as they enlarge, become more or less pigmented.

At the post-mortem examination of one who has died of this fever, usually, you will find these glands in all stages of this pathological process, from slight enlargement and softening to ulceration of the entire follicle. The summit of the enlarged follicle is the first seat of the ulcer. These ulcers may involve a single follicle, or they may invade the adjacent mucous membrane, and produce ulcers from one-half an inch to an inch in diameter. The largest and most extensive ulcerations are to be found in the ileum, and involving the Peyerian patches. The edges of these ulcers are irregular and everted; their base usually is of a grayish color, often mottled with black points. These ulcers may extend into the submucous tissue, and involve the muscular coat of the intestine, and even perforate the peritoneal covering of the intestines.

In the earlier stages, there is little to distinguish these intestinal changes from similar ones which develop in typhoid fever, except, perhaps the tendency to the deposit of black pigment in the enlarged follicles. In a later stage, certain peculiarities are pres-

ent, which are often sufficiently distinctive to designate the case as one of typho-malarial fever. For instance, in typho-malarial fever there is a gradual elevation of the mucous membrane surrounding the enlarged follicles, which, if ulcers exist on their edges, reaches a thickness of from three to six lines.

These ulcers differ from those of typhoid fever, in that the enlarged patch rises abruptly from the mucous membrane, and in such a manner, that the summit is often larger than the constricting base. Besides, the umbilical depression so often seen in ordinary typhoid patches prior to ulceration is rarely observed in typho-malarial fever. As I have already stated, the ulcers in typho-malarial fever present ragged, irregular edges, which are usually extensively undermined, in consequence of the erosions extending into the submucous tissue, rather than into the glandular layer of the mucous membrane. This undermining of the edges is much more extensive than in typhoid ulcers.

The mucous membrane between the follicles presents the ordinary appearance of catarrhal inflammation, namely, there is more or less congestion, tumefaction, and in the later stages thickening and softening of its tissue.

The minute anatomical changes which attend the development of these intestinal lesions, as determined by the microscope, do not essentially differ from those which I have already described as occurring in typhoid fever, except that they have no regular stage of development marked by days and weeks, the processes are slower in their development, and the presence of pigment in the enlarged and ulcerating follicles stamp it as depending upon an essentially different exciting cause. Hence, although the intestinal lesions of this fever very closely resemble those of typhoid, they are not identical, but evidently belong to another type of disease. Undoubtedly, there are cases in each of these two forms of fever, between which, by the intestinal lesions alone, it is impossible to draw the line of distinction but in typical cases this is easily done.

Intestinal perforation, and a consequent peritonitis, the result of the intestinal ulceration, may occur in typho-malarial fever, but such an accident rarely occurs. Usually, the mesenteric glands are more or less enlarged, and in the advanced stages of the disease, more or less softened. They are of a livid color, and more or less pigmented. The greatest enlargement of these glands will be found in that portion of the mesentery which corresponds to the most extensive and advanced intestinal changes.

The principal changes in the structure of the glands are similar to those which occur in a purely inflammatory process.

Occasionally, minute ulcers are met with in the mucous membrane of the stomach and large intestines.

Etiology.—It is difficult to determine the true etiology of typho-malarial fever. That malarial poison is necessary for its development there can be no question. It is equally certain that some other poison besides malaria is in operation whenever this fever prevails. That this poison is not the specific poison of typhoid fever is apparent from the fact that its development and spread, as far as can be determined, is in no way connected with the excrements of one suffering from this fever.

There are two or three facts connected with its development which are now well established:

First. It is only met with in malarial districts.

Second. In the majority of instances, when this fever has prevailed, its development has been preceded or attended by marked and readily recognized antihygienic conditions, such as overcrowding, bad sewerage, and other conditions favorable to the development of septic poison.

Third. That it is a non-contagious disease, and is never propagated from the affected to the healthy, either directly by personal contagion, or indirectly by morbid excretions.

It cannot be regarded as a new disease, but in its morbid anatomy and symptomatology is a combination of two well-recognized forms of fever. The special symptoms and lesions of one or the other of these fevers stamp its character, and indicate its alliance to a malarial or septic type of fever.

Symptoms.—It is even more difficult to present a typical picture of this than of typhoid fever. To give you even an outline of its symptoms which shall be approximately true of all, or even the majority of cases, is impossible. Its clinical history varies as the malarial or septic element predominates. Besides, there are a large number of cases in which neither of these elements can be said to predominate, for the patient almost insensibly passes from a malarial into a typhoid condition. There are also certain antihygienic conditions which may be present which give to the fever an unusual and peculiar type. For example, when those conditions exist which favor the development of scurvy, if typho-malarial fever is prevailing, as the patient enters upon the second week of the fever, the scorbutic phenomena will become prominent.

At times the dysenteric element may be engrafted on this fever, which shall greatly modify its course, and lead to a train of symptoms, and morbid changes which shall very closely ally it to epidemic dysentery.

The course of this fever may also be greatly modified by certain local complications which are especially liable to occur during the second or third week. The presence of any of these conditions will greatly change its clinical history, but the phenomena which attend its early development will always be sufficient to determine its true character.

In considering in detail the symptoms of this fever I will first describe that class of cases in which the malarial element is predominant.

This type of fever is usually ushered in by a distinct chill. In some instances no premonitory symptoms are present, in other cases the chill is preceded by wandering pains in the limbs and back, headache, loss of appetite, and a feeling of great exhaustion. In a large proportion of cases, in the early stage, the countenance has a peculiar waxy, clay-colored, or yellowish tinge. The chill varies in duration from half an hour to an hour, and in character closely resembles the chill of simple remittent fever. It is immediately followed by active febrile symptoms, the temperature rising in a few hours to 103° F. or 104° F. The pulse reaches 100, and is full and forcible. The excretions are all checked, and there is mental disturbance and sometimes delirium. When once established the fever pursues a variable course. At its onset, and for the first few days, its phenomena often closely resemble those of simple remittent fever, though the remissions are never so well defined as in remittent, and there is at the very onset of the fever an amount of intestinal disturbance which is rarely present in simple remittent. The existence of abdominal tenderness, especially in the right iliac fossa, is a strong point in the differential diagnosis of typho-malarial and simple remittent fever in favor of the former. As the temperature rises, nausea, vomiting, and epigastric tenderness are present in a greater or

less degree. These gastric symptoms bear a close resemblance to those which attend the development of remittent fever, while the intestinal and abdominal symptoms are similar to those of typhoid fever. Diarrhœa may precede the chill; in most cases it is present during the period of fever. At first, the tongue presents a pale, flabby appearance, with a smooth surface, soon it becomes covered with a white or yellowish-white coating, later it becomes red and the coating becomes brownish; in severe cases it may suddenly become clean, red, and shining, and sordes may collect upon the teeth and lips.

Throughout the whole course of the disease there is a marked tendency to periodicity, the exacerbations usually assuming a tertian type. In fatal cases, as the patient reaches the second or third week, the symptoms are very like those of fatal typhoid fever; the prostration becomes more and more complete, the pulse reaches 130 or 140, is feeble and irregular, the patient gradually passes into a state of stupor and coma, involuntary evacuations take place, and death ensues.

In cases that recover, symptoms of amendment may be noticed between the tenth and twentieth days. The tongue begins to become clean, the abdominal symptoms subside, the pulse becomes less frequent and fuller, the disturbance of the nervous system disappears, the appetite gradually returns, and the patient enters upon a tedious convalescence, which is attended by more or less diarrhœa, mental stupor, cardiac irritability, and a slow return of mental and physical vigor.

Original Communications.

A CASE OF OVARIOTOMY BY THE ANTISEPTIC METHOD.

By W. F. ANDERSON, M.D.,

SALT LAKE CITY, UTAH.

In July, 1876, was called to visit Mrs. C., a married lady, æt. 42, the mother of one child about twelve months old. She gave the following history. Was fourteen when her menses appeared, had two abortions about three years since, previous to her first pregnancy. Twelve months since, immediately after her delivery, she first observed a hard swelling low down in the left side, which gradually increased in size. Has menstruated regularly (usual amount, with some pain) for some months past. On examination, found the whole abdomen occupied by a large, knobby tumor, fluctuating in some portions, solid in others, no particular pain on pressure, though during its growth had suffered severe pain in several portions of the abdomen; moves her body with ease and freedom, appetite and digestion good, no emaciation, sleeps well, no leucorrhœa.

Diagnosis.—Ovarian cyst. The weather being extremely warm, advised her to go home (a hundred miles south), and return in cool weather to be operated on. In January, 1877, was much increased in size, tumor growing rapidly and general health slightly failing; womb normal, moving freely with the sound. My associate, Dr. J. S. Richards, aspirated a prominent cyst, drew a pint or more of serum, which he tested and found loaded with albumen. January 31, 1877, after administering chlorotorm and maintaining its influence with ether, assisted by Dr. Smart, U.S.A., Drs. Benedict, Hamilton, Fowler, and Richards, a six-inch incision from umbilicus to pubis was made under a continuous carbolic spray from Sass's Atomizer, which was kept in constant play during the operation. Several cysts were tapped, a quantity of the serum unavoidably flowing into the peritoneum, some extensive adhesions to the abdominal walls first tied with animal carbolized ligatures, then severed. The cyst was removed with some difficulty, its rather broad pedicle tied securely with the same ligatures, severed with the écraseur, and returned. The womb and remaining ovary found healthy. The pelvis carefully cleansed of serum and blood, the incision closed with deep-seated and superficial ligatures, an eight-inch rubber tube extending into the depths of Douglass's pouch left in the lower part of the incision. Prof. Lister's carbolized dressings applied, and the patient, frightfully prostrated (the operation having consumed over an hour), removed to a comfortable bed. Opium and cayenne freely given; brandy, milk, and beef tea ad lib. Room well ventilated through a fireplace, and the atmosphere kept constantly impregnated with carbolic acid vapor, and a steady temperature of about 80° F. maintained. Reaction came on in about twelve hours, and not an untoward symptom manifested itself during recovery. Record made twice daily, temperature averaging about 100 F., and pulse between 80 and 90. Dressings removed and fresh reapplied on the eighth, and the bowels moved by injection on the tenth day. In three weeks the patient walked about the room and ate breakfast at the table. Early in March returned home in good health. The solid portion of the cyst weighed seven pounds, being multilocular and containing nearly two gallons of serum.

A CASE OF FOREIGN BODY IN BRONCHIAL TUBE.—SPONTANEOUS EXPULSION FIVE MONTHS AFTER.

By JAMES A. BREAKELL, M.D.,

NEW YORK CITY.

M. C., æt. four years, while playing with a piece of the shell of a peach-pit, put it in her mouth, and during the respiratory act, drew it into her trachea, October 14, 1876. She was seized with a violent paroxysm of coughing, but failed to expel the foreign body. A few days after this occurrence I saw her; she was then suffering from an attack of pneumonia, confined to the upper portion of the right lung.

The patient passed from my observation to the care of Dr. J. L. Little, who requested Dr. J. R. Leaming to see the case with him, and a diagnosis of a foreign body in the third branch of the first division of the right bronchus, the same place as that of the button case in Dr. Markoe's practice, was made.

All efforts to induce the friends to have tracheotomy performed for the removal of the foreign body proved unavailing, and the child was left, as supposed, to her fate. She, however, gradually recovered from the affection of the lung, and remained well for about one month, when I was called to attend her. She was again suffering from pneumonia in the same situation, which passed through the usual stages, and ended in recovery. The patient suffered considerably from cough and fetid breath for about three weeks after the accident until April 13, 1877, when she was seized with a convulsion, followed by a violent paroxysm of coughing, during which the foreign body was expelled after having been in the lung for the period of five months. The child has since done well.

The piece was triangular in shape, weighing three grains, and the perimeter being one and three-eighths inches.

335 West 24th St.

A CASE OF POISONING BY CONTACT OF THE POWDER OF RESIN OF PODOPHYLLUM.

By DAVID WEBSTER, M.D.

Assistant Surgeon to Manhattan Eye and Ear Hospital, New York; Clinical Assistant in Ophthalmology to the College of Physicians and Surgeons, New York.

Thomas C., æt. 17, native of New York, chemist's assistant in a wholesale drnggist's establishment in this city, consulted me at Dr. Agnew's clinic at the Manhattan Eye and Ear Hospital, on Wednesday, Jan. 10, 1877, in regard to inflammation of his eyes.

Mr. C. said that on Monday, the 8th inst., he was engaged for five hours in powdering the resin of podophyllum. The podophyllum was placed in a two-gallon mortar and powdered by means of a heavy pestle—he necessarily bending over the mortar while thus engaged. The volatile powder flew up into his face and eyes, but not more than is usual in the levigation of dry, light, volatile substances.

The next morning, Tuesday, while washing his face, he first noticed that his eyes were red and the skin about them discolored. The discoloration extended over the whole of his face, his forehead, and the front part of his neck during the day, and the following night his eyes became so painful as to prevent sleep.

When he presented himself at the hospital on Wednesday, all the parts which had been exposed to contact with the powder were of a yellowish-red color, but not swollen to an appreciable extent. The ocular conjunctivæ were much injected, the palpebral only slightly, the pupils small, the eyes painful and sensitive to light. I instilled a two-grain solution of sulphate of atropia four times at intervals of fifteen minutes before I succeeded in dilating the pupils. There were no signs of iritis, but there seemed to be a reflex spasm of the sphincter iridis which caused it to resist the action of atropine.

I gave the patient a two-grain solution of atropine to drop into each eye three times a day, and a borax wash for the whole affected surface, to be applied also three times a day.

I saw him last on Saturday, the 13th, when his eyes had resumed their normal appearance, except that the pupils were dilated, and the skin of the face and neck had lost its unnatural color. A few small pustules were scattered over the chin and throat.

I stopped the atropine and directed him to continue the borax wash until the pustular eruption should have disappeared.

Mr. C. informed me that he knew of three other druggist's assistants who had been similarly affected from the contact of powdered resin of podophyllum.

Phosphorescent Sweating.—While the subject of phosphorescence in marine animals was under discussion at a society meeting in Florence, Professor Panceri cited the case of a medical man, who, after eating fish, felt indisposed, had nausea, and sweats that were luminous. This idiosyncrasy was laid to the *pesce bandiera*, a Neapolitan fish. Dr. Borgiotti, another member of the Academy, also narrated a case of phosphorescent sweating in a patient with miliaria, a fact which has previously been noticed.

Progress of Medical Science.

Suture of Tendons.—M. Notta, of Lisieux, has published two cases in which tendons were united by metallic sutures, and where union took place by first intention, and without adhesion to the skin. In two other cases the wound suppurated, and accordingly union was by second intention, and yet there was no subsequent adhesion. This result is thought to be due to the fact that the tendon alone was involved, and that the limb was kept absolutely immovable. M. Terrier, remarking upon the cases, thought that in either case, whether union took place by first or second intention, there was adhesion between the skin and the tendons, but that exercise had stretched them apart. With the use of catgut and Lister's dressing, he thinks suppuration may be dispensed with.—*Journ. de Méd.*, May, 1877.

Leukæmic Tumor of the Neck Treated by Iodide of Potassium.—The following case is of interest as shedding light upon the treatment of a very rebellious affection: A child, three years of age, came under the care of Dr. Cabot with a tumor of the neck of eighteen months' standing. It had grown rapidly during the preceding few months, and was lobulated and hard, though freely movable, and extended from the ear to the clavicle, and from the median line in front to the transverse processes of the vertebræ. There was no enlargement of the spleen or lymphatic glands. The microscope showed that the proportion of white blood-corpuscles was twice the normal amount. The boy was at first ordered five drops of the iodide of iron three times a day, but, as diarrhœa ensued, it was soon suspended. Two grains of iodide of potassium were then given twice a day in milk, with an ounce of brandy daily as a stimulant. From this time his general health commenced to improve and the tumor softened. Six grains of the iodide were then given daily; iodide of lead ointment was used locally, and a poultice at night. After two months and a half the tumor had diminished two inches in size, and the white corpuscles were normal in amount. Unfortunately, while the treatment was being successfully continued, the child died of diphtheria.—*Boston Medical and Surgical Journal*, May 10th, 1877.

The Sulphate of Cinchonidia and the Sulphate of Quinia.—Professor Love, of Atlanta, noting the difference in effect between the two remedies, says that there are some in favor of cinchonidia. This latter has less action upon the nervous system; there is with it less cerebral fulness, less ringing in the ears, and less deafness and disturbance of vision or vertigo. As a cardiac sedative their action is about the same. Where quinine produces muscular prostration, coldness of the surface, and, in herculean doses, prostration and collapse, cinchonidia has not been noticed to have any different effect. As the result of extensive practice within a malarious district, where acute cases were apt to become chronic, quinine was not found so efficient as the preparations of bark containing other or all the alkaloids. In such cases he believes that cinchonidia will be found more effective than quinia. Indeed, he has been in the habit of prescribing cinchonidia in the same doses, forms, and formulæ as quinia, except in some few acute cases where the active *explosive* power of the latter seemed to be indicated to meet a paroxysm; where, however, there were indications for a *siege* treatment rather than by *storm*, he thinks that an advantage other than pecuniary will be found in the sulphate of cinchonidia.—*Atlanta Medical and Surgical Journal*, May, 1877.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE MEDICAL TREATMENT OF UTERINE DISEASE.

The second meeting of the American Gynecological Association was held in Boston last week. The attendance was good; the papers read and the discussions held were of a character to do honor to the Society and to the members taking part. The address of the retiring President, Prof. Fordyce Barker, was upon a subject which, although not a very fashionable one at present, is certainly deserving of some little attention. Without wishing to ignore the just claims of operative gynecology, he very properly urged the giving of more attention to the medical treatment of uterine disease. There is no doubt that this latter branch of our science has been too much neglected—that many operations have been done more because they were fashionable than for any good conferred by them upon the patient. It is so easy to gain credit by such procedures, that it is no wonder that so many yield to the temptation. Then, again, the uterus is so non-retaliatory, that it invites all sorts of inroads upon its textural integrity. The shedding of uterine blood apparently begets an insatiety for gynecological operations, which, when once established, is sometimes dreadful to contemplate. Cases are on record in which surgeons have timidly begun with incising the os, then with excising the cervix, body, and fundus of the uterus; and lastly, when ovaries were included in the ablation, have actually mourned that nothing more was left to conquer. The fact that some of these patients get well may help to prove that, gynecologically speaking, the uterus and appendages are incumbrances. But the other side of the argument is, that women who are not operated upon, whose uteri know not the knife, the scissors, écraseur or pessary, also get well. This is certainly great comfort to the ordinary practitioner, who has a healthy fear of disturbing peritoneal coverings, of poking pessaries into the bladder, of mistaking the uterus for the ovary, and of any of the other trivial accidents which occasionally happen in the higher walks of gynecology. The fact is, that the desire to cut, twist, burn, amputate, electrolyze, and pessarize the uterus has amounted almost to a mania. The aspiring gynecologist who has been unable to devise a new operation, invent a speculum, or modify an old one, has been compelled to infuse his energies either into a new cautery iron, a novel back-action curette, or a manifold self-acting elevator. If, perhaps, he fails in every other way in encouraging operative procedure, he gives a new and important twist to a pessary, establishes a principle, and makes a reputation. But if the time has come for a change of opinion, if the worst must come to the worst, advocates of the new doctrine can do no more than arrest the study of surgical statistics, and, as a possible consequence, create a corner in uterine pathology. In any event we are willing to give the uterus one more chance.

INDEPENDENT EXAMINING BOARDS.

We have been so thoroughly impressed with the necessity for the independent examination of candidates for graduation in medicine, that we gladly call attention to the subject at this time, in view of its prospective discussion at the next meeting of the State Society. At the session last year, a resolution was passed to the effect that a committee of six examiners be appointed by the President of the Society to attend the annual examination of such colleges as might request the service, and determine the qualifications of the graduates. After some discussion the resolution was accepted, and referred to a committee of which Prof. Moore is chairman, and which committee is expected to report on the second day of the coming meeting.

The conservative element of this proposition will commend itself to the thoughtful consideration of all interested in the advance of medical education, not only in this, but in the other States. We cannot doubt that the resolution will find favor with the Society. There is nothing compulsory in the measure; any college is free to accept the board or not, as it may choose. The failure to do so, however, would arouse the suspicion that the methods of examination are not above suspicion. One or two of the leading colleges in this city have agreed to the proposed plan, and have expressed a willingness to submit to the fullest possible censorship of the examining room, in the belief that the more that is known of their methods the better satisfied will be the profession of their standard. It is not absolutely necessary that the committee take active part in the examination, in fact, for obvious reasons, it might be much better that they should not. But all the examinations should take place in their presence, and they should satisfy themselves of the fitness of each candidate and report accordingly to the Society. In cases of doubt it certainly would be the policy of the college to satisfy the

board rather than run the risk of an adverse report. If the board act as invited and therefore privileged inspectors, they need not necessarily have a vote with the faculty, yet if the colleges agree to give them that privilege it will be one of pure courtesy. Aside from guaranteeing fair play in final examination, it will help to establish a uniform standard throughout the State. It is so positively against the interest of the colleges themselves to oppose the measure, that there does not seem to be a doubt as to their action.

THE NURSE TRAINING SCHOOLS.

The success of the Training School for Nurses of this city is everything which its most earnest advocates could desire. During the past year its work has increased, from the care of nine wards with one hundred and sixty beds and thirty-one nurses, to twelve wards with one hundred and nine-two beds and fifty nurses. Aside from this, there are ten nurses detailed for private service, which are regularly employed in visiting the sick poor in connection with the New York City Mission. In connection with the benefits which trained nursing can confer upon the sick, no one can be too enthusiastic in urging its claims to public and professional consideration. The recent appropriation of the old building of the Medical Department of the University to the purposes of this Association is a step in the direction of still more bopeful services to the sick. With the increased facilities for instruction and with the conveniences of management which a commodious and well-arranged building affords, the managers of the school have placed in their hands resources almost unequalled in any other city. The demand for these trained nurses is increasing, and must continue to do so, as experience teaches us more and more the value of their labors.

THE CARE OF THE CHILDREN.

A writer in a recent issue of the *Times* calls public attention to a new scheme for the care of the poor children during the present summer season. Although the St. John's Guild deserves a great deal of credit for establishing its summer excursions for poor infants, we agree with the writer that the ultimate results of the plan have fallen far short of the expectations of its friends. We early called attention to the absurdity of crowding together large numbers of children for the sake of a few hours' sail through the Bay or up and down our rivers. The fatigue of travel to and from the boat, the excitement and discomfort while aboard, and all the other drawbacks of an infant picnic, more than counterbalanced any good which might be obtained from a few hours' breathing of fresh sea air. The desire to make these excursions popular naturally prompted a disposition to overdo the matter, and the more children who could be counted as passengers the better. From a purely sanitary measure at the start, it became a simple business speculation, which culminated in the building of the so-called hospital barge, and which is nothing more than a well-appointed excursion boat. We are not informed whether the managers of the Guild intend to keep up these daily excursions, but as there is little doubt of it, there will not be much prospect of sanitary improvement. As we have often remarked on previous occasions, the only way to utilize profitably the good intentions of the Guild is to make the barge a floating hospital proper, to anchor it in some convenient and accessible place in the river or Bay, and allow patients to remain upon it a week or more at a time. But as this would probably interfere with its success, as a so-called charitable enterprise, we have no hopes of its being carried into effect. The writer in the *Times* has the same object in view, but he applies it to a different end, which is the construction of cheap temporary encampments for the children out of town. These habitations he intends not only for the sick children of the poor, but for the well children of the tenement house population. The idea is eminently practical, and commends itself to the charitable, to whom he appeals for aid. There is not the slightest doubt in our mind that such a plan, if properly carried out, would materially lessen the infant mortality in the densely crowded portions of our city during the summer months.

THE SHOP-GIRL QUESTION.

The shop-girl question has of late given rise to a good deal of discussion in the daily papers. Some years ago attention was drawn in Liverpool, England, to the hardships of female clerks, who were compelled to stand the greater part of the day, whether they were busy with customers or not. A society of influential ladies undertook to remedy the evil, but, aside from arousing a temporary public indignation against shopkeepers in general, nothing was accomplished. There is, however, some promise that something will be done in this city, judging from the widespread interest manifested on behalf of the sufferers. There does not seem to be any argument in favor of the girl standing, when not engaged with customers, that would not hold equally good when sitting. Such is certainly the case if we take no more than a purely business view of the matter. But if we go beyond this and view the situation from a strictly hygienic point, there is no end of argument against the evil. In fact, so one-sided are they that it seems almost presumptuous on the part of the shopkeepers to offer any other than purely business reasons for their cause. The ordinary male clerk finds, not infrequently, his endurance taxed to the utmost by this submission to the standing discipline, but what to him is simple fatigue becomes downwright cruelty to the delicate girl, especially during the catamenial period. In respect to the care of themselves which they should exercise at those

times, they are on a par with their more fortunate sisters. It is no reason that business should be neglected on account of the physical disability of the employés, but, on the other hand, health should not be sacrificed to unnecessary rigor in enforcing rules. The friends of the new movement have the strongest arguments on their side, and it is to be hoped that they will continue their good work until some definite and practical results are obtained.

THE NEXT MEETING OF THE STATE SOCIETY.

In another column we publish the order of business of the coming meeting of the Medical Society of this State. We call attention to the fact more particularly for the purpose of inviting other similar organizations to follow the example. By this means the members who wish to take part in discussions have the opportunity of preparing themselves beforehand.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 25, 1877.

Dr. E. G. Janeway, President, in the Chair.

MAMMARY TUMOR—THE RETURN OF SARCOMATA.

Dr. E. H. M. Sell presented a mammary gland which had been removed from a patient æt. 55 years and 8 months. The breast contained a new growth which was first noticed about seven weeks previously, when it was about the size of a common marble. There was no history of hereditary taint upon either side, and no history of injury. There was no enlargement of the axillary glands. At the time of removal the tumor was about two and a half inches in diameter. The Doctor supposed it to be scirrhus.

Dr. Beverley Robinson regarded it as a very rapid growth for scirrhus.

The President remarked that the tumor had the appearance of a sarcoma, small spindle-celled perhaps, which has a rapid growth.

Dr. Sell.—So much the better for the patient.

The President.—Not so certain, for sarcomatous tumors return, and are very commonly troublesome affairs.

Dr. Briddon remarked that the larger majority of sarcomas of the breast returned much more quickly than pure scirrhus.

The specimen was referred to the Committee on Microscopy.

Dr. Beverley Robinson presented specimens of the following:

CATARRHAL PHTHISIS—SECONDARY TUBERCULIZATION OF LUNGS, PLEURA, KIDNEYS, AND PERITONEUM—CHRONIC PLEURISY (LEFT)—ACUTE PERICARDITIS—ACUTE CATARRHAL PNEUMONIA—FATTY LIVER—CHRONIC ULCERATIONS OF SMALL INTESTINE.

P. H., æt. 22; native of Ireland; was admitted to Charity Hospital on March 12th of this year.

On admission he was weak and emaciated, and complained of pain in left side and persistent cough. Father still living; mother died some years ago, cause unknown. Patient says he has been a hard drinker during past six years. He has been annoyed for several months with an abundant purulent expectoration, and has at present considerable difficulty in breathing. Several years ago he had a hard chancre, and since that time has had cutaneous manifestations of constitutional syphilis. Maculæ are now visible upon lower extremities. No actual bony lesions, nor any nocturnal pains beyond those which are constant in thoracic region. His pulse and respiration are accelerated, and there is considerable elevation of temperature. His cheeks are flushed, especially the left. Several nerve symptoms are present, indicating considerable depression of vital forces, or anterior habits of intemperance, such as uncertain and irregular movements in the use of the hands, hesitation and stammering in speech, accompanied by fibrillary contractions of tongue, lips, etc.

The brain is lucid, and there are no symptoms of paralysis; voice is very hoarse. On percussion of chest, moderate dulness is found under clavicles on both sides. In these regions are also found subcrepitant râles in abundance. In posterior portion of chest there is moderate dulness on the right side. On the left side, dulness is more marked still, especially in lower half of chest, where it is nearly absolute. At this level there is loss of vocal fremitus, and the breathing is muffled and distant. At upper third of left lung, bronchial breathing and increased vocal fremitus are readily appreciated. Throughout this space, then, there is no doubt about the existence of a consolidated condition of lung-tissue, due probably to a catarrhal pneumonic process. Upon puncture of the lower portion of left pleural cavity with the needle (No. 2) of aspirator, serous fluid was found, and about eighteen ounces were withdrawn. After the removal of fluid from the chest, patient's condition was somewhat ameliorated for about two weeks, when he again began to fail. Mucous râles in increasing numbers were heard distinctly everywhere throughout both sides of chest; cough and expectoration became still more distressing; a fresh pneumonic process was set up in the lower portion of the right lung, to which patient finally succumbed. On the day preceding death, patient's larynx was examined with the laryngeal mirror, but owing to great local irritability and excessive dyspnœa, nothing further was accurately determined beyond the fact that the hoarseness was due to a catarrhal or phthisical process, and *not* to a *syphilitic* one. The cords could not be seen, it is true, but the epiglottis and upper orifice of the larynx were distinctly observed. There was no œdema or swelling of these parts; the epiglottis was pale and intact, as also the faucial region. Much frothy mucus was present in the larynx. These signs, taken in connection with the other symptoms of disease noted in this history, were deemed sufficient to eliminate laryngitis of syphilitic nature.

Autopsy was made by Dr. E. A. Maxwell, 21½ hours after death. Rigor mortis present. Body medium size, fairly nourished.

Head.—Brain normal.

Larynx.—Both vocal cords show about their middle portion, at upper and rim borders, small longitudinal ulcerations, while the rim of vocal cord is thickened. At posterior commissure of each is an irregular spot, where mucous membrane is eroded; interior mucous membrane is congested.

Trachea.—Mucous membrane congested; tracheal glands normal.

Thorax. Lungs.—Right pleural cavity almost obliterated by old adhesions; left pleural cavity filled with brownish, opaque fluid.

Left Lung.—Compressed against spinal column, and firmly adherent to intercostal pleura and that covering diaphragm; surface of lung anterior to adhesion is covered with pseudo-membranes about one-quarter of an inch in thickness; thick hemorrhages at various points. At apex of left lung a cluster of small cavities, the largest of size of pigeon's egg; at parts of upper two-thirds of lung occasionally a small cavity found, and side of this lung studded with yellowish granulations, singly and in clusters; moderate amount of fibrous induration.

Right Lung.—Upper lobe consolidated at anterior margin by fibrous indurations; more margin than in opposite lung; the same yellowish and gray nodules; few small cavities. Many of smaller bronchi show ulcerated mucous membrane. In middle and lower lobe, and scattered here and there, miliary, semi-transparent granulations; lower lobe throughout partially consolidated by acute pneumonia (catarrhal), showing red and gray stages.

Pleura.—In œdematous pseudo-membranous cavity of pulmonary pleura are scattered miliary granulations.

Heart.—Pericardium contained about four and a half ounces of dark-colored fluid; both visceral and parietal layers show fibrinous exudations, containing hemorrhages; on looking for tubercles, found two only (questionable); walls and valves normal.

Peritoneal Cavity.—Contains one and a half pints of fluid, clear, straw-colored; surface of peritoneum shows the characteristic miliary, semi-transparent grayish granulations, singly and in clusters.

Liver.—Shows a few granulations beneath capsule, also localized perihepatitis; throughout parenchyma, with one or two granulations, are some fatty intralobular congestions.

Spleen.—Enlarged; perisplenitis; softened.

Kidneys.—Surface and throughout parenchyma, a few scattered tubercles are found, medium size. *Capsule* slightly adherent; moderate atrophy of columns of tubules and pyramids; the latter spread out; Malpighian bodies prominent and shining.

Stomach.—Normal.

Intestines.—Small, shows congested mucous membrane; lower one-third shows scattered phthisical ulcerations; at ileo-cœcal valve are several ulcerations which have partially destroyed the valve. In large intestine, occasionally an enlarged solitary gland; mesenteric glands are enlarged.

Dr. Robinson raised the question whether such tubercular process could fairly be regarded as secondary to the phthisical conditions. He was inclined to the opinion that the catarrhal phthisis and the tubercular process were developed at the same time.

The President was of the opinion that in many cases there would be found an older and also a more recent process. For instance, not infrequently, there were found in the lungs places which gave the appearance of a lesion that had lasted for some time; a portion which perhaps had advanced to the cheesy state. And such a place, perhaps upon the pleura over it, often finds more recent grayish nodules; those similar in appearance might also be found in the liver and upon it; also in the kidneys, usually more opaque. However, in those organs, and perhaps in the meninges of the brain. The appearance under those circumstances would point to a more recent lesion, as far as the new growth was concerned.

Experimental pathology would point to the same conclusion—namely, that those gray granulations were of more recent formation than the older process. The rapidity with which they could run their course was seen in acute cases, when the entire duration of the disease was no more perhaps than a few weeks or months. The phthisical process in the case presented had probably lasted a much longer period of time.

FRACTURE OF NEEDLE WHILE MAKING EXPLORATIVE PUNCTURE INTO THE PLEURAL CAVITY.

In this connection The President referred to three cases in which the needle used for making an explorative puncture into the pleural cavity had been broken by the sudden movement of the patient as it was thrust in. One case occurred in his own service in Bellevue Hospital, one in Roosevelt Hospital, and one in Charity Hospital.

In neither instance had the portion of needle left in the pleural sac given rise to unfavorable symptoms. The three cases came to his knowledge within one month, and showed the liability to an unpleasant accident, which had not occurred to him before, while performing this simple operation, and of which he had no recollection of having seen anything published.

Dr. Robinson referred to a case in which the same accident occurred, but no unpleasant symptoms followed.

BILIARY CALCULUS IN THE CYSTIC DUCT—PAIN AS A SYMPTOM.

Dr. Austin Flint, Sr., in behalf of Dr. Ellsworth Eliot, presented a cystic duct containing a biliary calculus; also a biliary calculus which had been removed from the gall bladder of the same patient. The latter was perfectly round, and presented a variegated surface. The gall bladder was somewhat diminished in size, and contained a small quantity of transparent gelatinous liquid. The chief interest in the case was the fact that there were no symptoms during life which indicated any trouble with the gall bladder or its duct.

The patient had been ill for a year or more, had chronic Bright's disease, and dilatation of the heart, and died suddenly in the act of getting out of bed. The case illustrated the fact that a calculus in the cystic duct did not always give rise to pain.

Dr. Briddon remarked that gall stones were not painful when stationary, and gave rise to pain only when movable.

Dr. Flint remarked that if stationary they gave rise to pain when situated in the common duct.

Dr. Briddon remarked that we would expect them to be accompanied with pain when situated in the common duct, though they might be stationary, for the pain would be caused by the pressure from behind.

Dr. Flint remarked he had always supposed, in certain cases of hepatic colic in which careful examination failed to reveal the presence of gall stones in the fæces, that the pain was due to the passage of a calculus into the cystic duct, and instead of going on through the duct had receded into the gall bladder.

Dr. E. Mason remarked that in Reynolds's System of Medicine, one author spoke of cases in which gall stones became impacted in the cystic duct without giving rise to pain.

The President remarked that he had been struck by the fact that many persons suffered severely from a degree of pain of which others made no complaint at all. He had noticed the fact, especially in connection with the passage of biliary calculi.

MORBUS COXARIUS.

Dr. Lewis A. Sayre presented the remaining portion of the head and neck of the femur removed in his sixty-ninth exsection of the hip-joint.

The patient's name was Geo. W. Smith, aged 19, and a resident of Pittsburg, Pa. He was a remarkably healthy boy, and was born of healthy parents. When between 11 and 12 years of age he injured his left hip-joint by trying to lift his leg upon the top of the banister in the porch, which was too high for him to reach. He was treated for some time for rheumatism. After some months the attending physician suspected hip disease, and applied "Sayre's" splint, which was worn for five months, when he was considered able to be without it. After some time the disease redeveloped, in consequence of over-exertion in running after the cars. The splint was reapplied and worn for seven months, when he was again considered cured, and it was again removed. He seemed to be in perfect health for eleven months, when the disease again redeveloped after severe playing at a game of foot-ball. He was then 16 years of age. From that time the disease had steadily developed. Extensive abscesses had formed around the hip, discharging freely for the past two years. In September, 1876, an extensive swelling occurred in left iliac region, accompanied by acute peritonitis, and terminating in an abscess, which opened near the pubis, *above* Poupart's ligament. This had continued to discharge very copiously during the winter, and he became so much exhausted that death seemed inevitable. Dr. Sayre was telegraphed to see him, at the request of Dr. Benham. He arrived in Pittsburgh on the 12th of April, 1877, and operated the same day, assisted by Drs. Benham, Bruce, and McDonald, all of Pittsburg. The boy was perfectly anæsthetized with ether by Dr. Benham, and was not conscious that Dr. Sayre had been in Pittsburg until some hours after the operation was performed.

The operation was performed in the usual manner, and about four inches of the femur removed. The head of the bone was so firmly impacted in the perforation through the acetabulum, that an immense amount of force was required to dislodge it, and, when removed, a large quantity of pus gushed through the opening. The femur measured at the trochanter minor six and a half inches in circumference: the enlargement being due to rarefying osteitis. The circumference of the neck was four inches.

The wound was cleansed and dressed in the usual manner, and the patient placed in the "wire breeches."

April 24th.—The case was progressing very favorably. The points of interest in the case were: 1, that it was distinctly of traumatic origin; 2, that relapses might occur after an apparent cure of morbus coxarius affecting an originally healthy joint, thus showing that care should be exercised and protection given against injuries for a long time after an apparently perfect cure of the disease.

Dr. Gibney inquired whether the bone was removed at a point below the rarefying osteitis, and was answered in the affirmative.

CANCER OF THE BLADDER AND RECTUM.

Dr. E. Mason presented the bladder and rectum taken from a patient who died in Roosevelt Hospital, April 15, 1877. He was forty-five years of age, and gave a good family history. He was admitted to the hospital in December, 1876. Four months before admission he was seized with an attack of cold, as he called it, and, after the chill had passed off, noticed for the first time that he had difficulty in passing his water. From that time on, he suffered from difficult micturition, and gave all the symptoms of stone in the bladder. When he came under Dr. Mason's charge, in February, he was considerably emaciated, and was suffering from great pain in the bladder and lower portion of the rectum. On introducing a sound into the bladder it was found to be contracted and the walls very much roughened. As the finger was passed into the rectum it came in contact with an indurated mass in the region of the prostate gland, and the posterior wall of the bowel was also somewhat implicated. The inguinal and lumbar glands were enlarged.

Diagnosis.—Cancer of the prostate and base of the bladder. The urine was drawn by means of a catheter during the last month of the patient's life. At autopsy the bladder was found to be the seat of cancerous disease, and the new growth had also involved the rectum. The new growth doubtless had its starting-point in the bladder, and could be seen as four distinct nodules. The prostate was not infiltrated with cancerous growth. There were secondary deposits in the liver.

GENERAL CARDIAC HYPERTROPHY AND DILATATION.

Dr. A. L. Loomis presented the heart and other organs removed from a man, æt. 26 years, a saddler by occupation, who was admitted to the Mt. Sinai Hospital, April 1, 1877. The patient gave no history of hereditary or acquired taint, and affirmed upon close questioning that he had been perfectly well up to four weeks before admission. He had never had rheumatism or syphilis. Four weeks before admission, the patient was seized rather suddenly with a severe pain in the left side, just under the nipple, and it also extended down the left arm. He stated that within two or three days following the attack, his feet began to swell. The swelling increased, the pain became more severe, he had some difficulty in breathing, and was unable to lie down. When admitted to the hospital he was extremely cyanozed, his respiration was labored and 40 to the minute; his pulse 120, and temperature 98¼° F. His countenance was extremely anxious. There was no irregularity of pulse, nor did it intermit. The urine contained a small amount of albumen, but no casts. Physical examination showed feeble respiration at the base of both lungs, with subcrepitant rales and dulness upon percussion. Respiration over the remaining portion of the lungs was normal. The apex beat was diffused, extended to the left of the nipple about one inch, and an inch below the normal position. Percussion over the region of the heart showed an increased area of dulness in all directions except upward.

Upon auscultation a loud presystolic murmur was heard at the apex and over the entire precordial space.

A less distinct and less intense systolic murmur was heard with greatest intensity about the median line, was conveyed to the right, and was not heard beyond the apex.

A systolic murmur was heard at the base of the heart, but it was not conveyed along the course of the arteries. There was a distinct epigastric and jugular pulsation.

Diagnosis.—General cardiac hypertrophy and dilatation; presystolic or mitral stenosis: tricuspid regurgitation; pulmonary œdema and fluid in the pleural cavities.

He was placed upon digitalis, and his condition improved very rapidly. The dyspnœa was relieved, the signs of pulmonary œdema disappeared, the œdema of the feet began to be removed, the fluid present in the abdominal cavity at the time of admission entirely disappeared; he was able to lie down; his pulse became less rapid, never falling below 100, however, his appetite returned, although at no time was he able

o take any quantity of food without causing nausea. 'he improvement continued for a week or ten days, vhen suddenly all the signs of cyanosis reappeared, is respiration became labored, evidences of pulmo- ary œdema developed, fluid returned to the abdom- nal cavity, œdema of the feet and lower extremities ncreased very rapidly, and the patient died on the 0th of April in a state of unconsciousness.

Autopsy.—*Brain*—Ventricles contained a consider- ble quantity of serum, and there was also considerable erous effusion into the subarachnoid space.

Lungs.—Old pleuritic adhesions, evidences of con- estion, and œdema at the lower portion of both; igmentation, and considerable fluid in both pleural avities.

In the upper lobe of the right lung there was found recent hemorrhagic infarction; no infarctions else- vhere, either in the lungs or other organs.

Kidneys.—Indurated and congested.

Liver.—Increased in size and hard.

There were evidences also of gastric and intestinal atarrh.

Heart.—Very much increased in size in every direc- ion; left ventricle dilated and hypertrophied; thick- ning and adhesion of the aortic valves, yet no insuffi- iency. There was thickening, adhesion, and retrac- ion of the mitral valves; the mitral orifice was iminished so as to scarcely admit two fingers; chordæ endinæ shortened, and there was a large amount of ew connective tissue about the base of the valves. 'he walls of the left auricle were thickened and its avity dilated. The right ventricle was very much ilated, its walls were thickened, and the tricuspid alves were insufficient. There were some vegetations pon the contracted portion of the mitral valves.

It was a well-marked specimen of general cardiac ypertrophy and dilatation.

The points of interest in the case were, *first*, its his- ory. The patient, following a trade which had not equired very much active exercise, had gone on with- ut suffering from any symptoms which would lead o the suspicion of cardiac disease until four weeks revious to his admission to the hospital. His symp- oms then developed suddenly, and became severe ery soon after their first appearance.

Second. From the appearance of the mitral valves ne would suppose that there must have been mitral egurgitation during life, and yet the murmur was not eard to the left of the apex, nor was it heard in the sual position behind.

Dr. Loomis was of the opinion, from observations hich he had made, that when mitral stenosis accom- anied mitral regurgitation, the regurgitant murmur as frequently absent.

Third. From the appearance of the aortic valves it ould seem that there must have been an obstruction o the outgoing current during life, and yet from more han one examination he was not able to detect a mur- ur much beyond the base of the heart, and a murmur as not heard at the junction of the second rib with he sternum upon the right side, and no murmur was eard in the carotid. The diagnosis of aortic obstruc- ion was not made.

Dr. Flint asked Dr. Loomis to what he attributed he sudden occurrence of symptoms?

Dr. Loomis replied that he supposed it to be due to ailure of the right heart.

Dr. Flint remarked he had often observed that isease of the heart had existed for some time without iving rise to any special symptoms, when all at once evere symptoms were developed without apparent ause.

Dr. Robinson mentioned that it was rare, with vegetations upon the valves of the heart, to have in- farctions only in the lungs.

The President remarked he had noticed that valves which appeared as though they would admit of regurgitation had not done so when carefully tried with the water-test.

Dr. Loomis remarked that the water-test was applied to the mitral valve in his case as soon as the heart was removed, and it was found that regurgitation took place.

The President remarked that the aortic valves looked as though they might allow leakage.

Dr. Loomis remarked that they also were tested with water when the heart was first removed, and did not allow of regurgitation.

The President remarked that the left heart, in comparison, did not seem to be much hypertrophied, although the cavity of the ventricle was dilated.

If the man died in diastole the real would not be so much as the apparent dilatation.

Dr. Loomis remarked that he was unable to say whether death occurred during diastole or systole. He had measured the cavities, however, and found that they exceeded the normal dimensions by consid- erable.

Dr. Loomis suggested the question whether in mi- tral obstruction there was ever present a condition of the auricle that prevented free regurgitation at the mitral orifice?

The President referred to cases of mitral stenosis in which the murmur was heard under the angle of the scapula.

Dr. Flint inquired with reference to the subsequent changes in the infarction had the patient lived.

The President replied that it would probably have become a cicatricial nodule with pigmentation.

ANEURISM OF THE MIDDLE CEREBRAL ARTERY.

The President presented a specimen of aneurism of one of the small branches of the middle cerebral artery, situated just after the vessel penetrated the anterior perforating space, and leading to large hemorrhage into the corpus striatum, brain, ventricles, and at the base, causing death four hours after its occurrence.

There was hypertrophy of the left ventricle of the heart, with chronic Bright's disease, but no marked degeneration of cerebral arteries.

Correspondence.

THE PLASTER-OF-PARIS JACKET AND A QUESTION OF PRIORITY.

To the Editor of The Medical Record.

Sir:—I have read the communications from time to time in your excellent journal, on the merits of the plaster-of-Paris dressing in angular curvature of the spine; also of the same mode of dressing used in rotary lateral curvature.

I have received additional instruction from reading the late communication in The Medical Record from Dr. Benj. Lee.

Dr. Sayre deserves great thanks from the profession at large, for thus bringing the subject so prominently before it, both in his excellent work on Orthopædic Surgery, and in his papers read before different so- cieties, and published.

My object in this communication, however, is to

record the history of a case of angular curvature, where the plaster-of-Paris dressing was used, at least *ten months* previous to that of the first case recorded by Dr. Sayre (June 4, 1875). See *N. Y. Med. Journal*, Sept., 1875, p. 243.

It is my purpose, also, to give due credit to a modest and deserving young man, Dr. Joseph Bryan, of Lexington, Ky., late house surgeon of Bellevue Hospital.

During my term as house surgeon of Bellevue Hospital, there was admitted to Ward 30, Second Surgical Division, this patient, with the following history, as written by Dr. Bryan, then my senior assistant.

Let me here state that the original history was always written by the senior assistant in a blank-book, provided by the house surgeon or house physician, as the case might be, and from this the junior assistant copied the history into the hospital record of the division. Consequently, I have in my possession the history of the following case:

Rosanna Brennan, 15, single, New York. Admitted Aug. 8, 1874. Family history not good. Patient's father died in prison; of what, she is ignorant. Mother is perfectly healthy.

Patient has had two brothers and two sisters. Both brothers are dead. One died of either disease of the spine or hip, she does not know which. Patient does not know of what the other brother died.

Of the two sisters, the younger has always been healthy. The elder, about eighteen years old, had a cough which lasted her a long time, but she finally recovered.

Patient herself has always been perfectly healthy until about three months ago, when she began to have pains in the back—the pains more especially in the lumbar region. She applied for relief at the Forty-second Street Hospital, where it was discovered that she had a prominent point, very tender, in the lumbar region of the spine. She also complained of pain extending down her lower extremities. The doctor at Forty-second Street Hospital told her she had disease of the spine, and made and applied a spinal splint. But it did not relieve the pain, and she therefore came to this hospital. On examination, discovered a prominence in the lumbar region, probably the third or fourth lumbar.

Pressure on this prominence gives her intense pain. Patient is hardly able to stand, and says that she suffers a great deal if made to stand long.

While in the standing position, pressure on the shoulders gives her pain.

Patient appears pretty well nourished. Appetite not very good. Says she does not sleep very well at night.

Dr. Mott, visiting surgeon, saw patient, and ordered her to have a seton put in her back near to point of tenderness.

Aug. 16, 1874.—To-day put an issue-pea in patient's back, near the point of prominence, as ordered by Dr. Mott, and applied her spinal brace made by Dr. Knight's direction at the Forty-second Street Hospital. Patient complained of pain during the afternoon, and compelled to go to bed again.

Aug. 21, 1874.—Applied her splint again this morning, but she complained so much of pain that we had to remove it again. Determined to apply a plaster splint.

Aug. 22, 1874.—To-day applied plaster-of-Paris splint, extending from axilla to one inch above the trochanter major, so as, if possible, to prevent any motion in the lumbar spine.

Aug. 24, 1874.—Had a fenestrum cut over the point of prominence, so as to be able to dress the issue daily. Patient feels perfectly comfortable with her splint on. Is to-day up and about the ward. General condition good.

Aug. 31, 1874.—Since the application of plaster-of-Paris splint, patient has done remarkably well. Suffers no pain, and is able to be up and about the ward all day. General health excellent. Takes cod-liver oil and iron, and a generous diet.

Sept. 10, 1874.—Since date of last note, patient has been up and about the ward all the time. She, however, complains of some pains in her legs and upper extremities, but do not think they are referable to her spinal disease. The issue is dressed daily, and discharges considerable. Patient's general condition excellent.

Sept. 17, 1874.—Patient still continues to do remarkably well. Issue discharges considerable, and is dressed by the nurse daily.

Dr. Bates and I assisted Dr. Bryan in applying the apparatus. Dr. B. had requested me to allow him to use the plaster-of-Paris dressing as an experiment.

As Dr. Bryan has not given in the history of the case the mode of applying the splint, I will add it now. A neat woollen jacket was prepared by the "trained nurse," Miss Wright, with whom we were all in love, and whom the doctor afterwards married and took to his home in Kentucky.

Compound or dislocation pulleys were attached to the water-pipes, which ran close to the ceiling in old Ward 30. To the pulleys was attached, from its centre, a pine stick two or two and a half feet long, from the extremities of which slings passed under the arms at the axilla. Thus was the patient suspended, her toes merely touching the floor.

Within a day or so her picture was taken, posterior view, so as to show the fenestrum, by Mr. O. G. Mason, the hospital photographer, on a requisition signed by one of the visiting surgeons, and myself as house surgeon. I have her picture at present in my office, and Mr. Mason should have the negative. Some doubt has been expressed as to the justice of Dr. Bryan's claim to originality or priority, which this history, from the original history book, may throw some light upon.

You will observe that the same mode of extension, with the same appliance, was used as in the cases of Dr. Sayre.

He also used the punctured tin strips as stays in the jacket. Dr. Bryan did not use extension from the neck, which is a valuable addition in the application of this splint. I would publicly thank Dr. Sayre for additional hints in the treatment, such as extension by the neck, and also the benefit to be derived by daily self-suspension in cases of rotary lateral curvature, as recommended by Dr. Benj. Lee. I can see, in a case at present under my care, great benefit from this daily exercise.

W. C. Shaw, M.D.

135 Wylie Ave., Pittsburg, May 29, 1877.

HISTORICAL NOTE ON MODERN OPHTHALMOSCOPES.

To the Editor of The Medical Record.

Sir:—The perfecting of any mathematical or optical instrument which pertains directly to the practice of medicine, and which, by its perfection, tends to narrow the boundaries between medicine as an art, and medicine as a science, has, or should have, an interest to the whole profession; and more to the general practitioner than to the specialist, since it is the former rather than the latter who invariably profits a

reater degree from simplicity of form and absence of echnicalities. There is, perhaps, no instrument in odern medicine in which the improvement in conruction has more clearly demonstrated its value, or ore extended its use than the ophthalmoscope. To ch a degree is this true that the very method of exmination formerly but rarely used on account of its ifficulty, has now become universal, and this mainly, not entirely, through the improvements made during he last seven or eight years.

For this reason it appears to the writer that credit hould be given to all of those who have aided even the slightest degree in this work, and it is in justice others as well as to myself, and with the desire of orrecting some erroneous impressions, that the folowing remarks of an historical character are offered. nd, perhaps, the simplest way of doing this is by eplying briefly to some assertions which have been ade from time to time, and which would not seem o be strictly in accordance with the facts of the case.

I was informed that Dr. Knapp had stated, in a late ecture at the College of Physicians and Surgeons, as e has in substance in other places, that the instruent now sold under my name was a modification of n ophthalmoscope invented by him, and that this odification consisted of but "one unimportant parcular." The evident, indeed the only meaning of this , that I took from his instrument all the important rinciples, and added only one which was not impornt. It is against this allegation, which has been reeated to me from many sources, that I now wish to ply. And I should like to say at the outset, that it not so much against the actual statement that my marks are directed, as it is against what the words substance imply. For it may be that Dr. Knapp ver made the statement precisely as it stands above. bout this there may well be a doubt, but of the pression left on the minds of those who have heard ese statements and who have repeated them to me various occasions, there can be no doubt whater. This it is which I feel needs some explanation my part.

In 1868, I began to make modifications of the ophhalmoscope. Up to this time it had been considered perative, with instruments designed for the use of e upright image and determination of the errors of fraction, to place the glasses in such a manner that e axis of the glass should coincide with the axis of sion of the observer's eye. This was deemed all esntial in order to avoid distortion of the image from igmatism. To attain this end it was necessary to ve the glasses placed at a considerable distance om the mirror, which was then set at a considerable gle to the plane of the surface of the glass. From s it resulted that the eye of the observer, in the inuments used for this purpose, such as Jaeger's and ellwag's, was nearly, if not quite, one inch from the le in the mirror.

Owing to this method of construction, with its atding disadvantages of reduction in field and illuination, and its inherent difficulties of manipulation, use of the upright image, the most beautiful and omprehensive method of examining the eye, was limil to a few enthusiastic experts, and even with them a restricted degree. From the fact that a small diaphragmatic opening, placed immediately in front of a lens, preserves the clearness of the image even when the lens is rotated on an axis, it occurred to the writer that a great increase in brilliancy of the image and extent of field could be obtained with a disproportionately small amount of astigmatism, even with still stronger glasses, by placing these directly against the mirror hole, all the brass work being made as thin and as much bevelled as possible to avoid reflections.

This was called a modification of Rekos's "disks," but in point of fact differed considerably from it. For the contrivance of Rekos's consisted of a series of three disks placed one behind the other at a considerable distance from the mirror and on a different plane from it. It possessed all the disadvantages described above, and to avoid which was the sole aim of my "modification."

Within a few months after the first published modification appeared (1869), a second was introduced by the writer, consisting of a single disk which rotated round a central axis. Three sizes of the instrument were made in rapid succession, one containing nine, one thirteen, and one sixteen glasses. And the number of these might have been increased at the option of any one, the limits only being set by the size of the glass or the diameter of the disk.

Numerous modifications of these instruments followed at once, not only in this country, but abroad. Among the later ones was an instrument contrived by Dr. Knapp in 1873,* four years after my first modification, and three years after the one with a single disk. This was an ophthalmoscope with two disks Of all unhappy optical contrivances this would certainly seem to be the unhappiest, violating, as it does, most, if not all, the necessary optical and mechanical principles which should govern the construction of an ophthalmoscope. Two centres of motion were used, where one would do, thus throwing one disk above the brow and making the centre of rotation come, not in the axis of the handle, but eccentrically at the edge of the disk over the brow. Owing to this, the rotation of the mirror sufficient for an ordinary examination carried the glasses to a considerable distance from the eye of the observer, increasing the astigmatism and decreasing the field and illumination. Moreover, as one disk came above the brow and in immediate contact with the skin of the forehead, it was absolutely essential that the glasses should be covered.†

Led by the failure of this instrument, or as Dr. Knapp puts it, "by the teaching of ophthalmoscopy," ‡ he produced, in 1874, what he styles, not a modification of the ophthalmoscope, but a "*new* ophthalmoscope with a single disk," and as the fact of my infringement rests on this particular instrument, it is material to show in what this claim to novelty consists. As an earnest of originality, Dr. Knapp begins the description of his new instrument with the declaration that "a series of auxiliary lenses, as used by Loring and others, appearing to suffice to the student and practitioner in ophthalmology, I had that series inserted into one disk." That is to say, he took, as the foundation of his instrument, the identical series of glasses which I had determined upon after some considerable trouble. He employed a single disk, "leaving the mechanism of fixation, rotation, and covering of the disk the same as in the compound instrument." Now it happens the fixation and rotation were in every essential precisely the same that I had employed some three years before in my ophthalmoscope with a single disk; that is to say, the disk was fixed directly against, or as Dr. Knapp has it in his phraseology, "under the

* Trans. Amer. Ophth. Soc., July, 1873.

† Had I been aware that Dr. Knapp was working in this direction, it would have given me pleasure to have furnished him with the idea of a combination instrument, which I had long discarded, and the model of which I showed at the meeting of the Academy of Medicine at which Dr. Knapp presented his instrument. The ophthalmoscope alluded to, although it had all the faults inherent with every combination instrument, was at least constructed on correct optical and mechanical principles.

‡ Archiv of Ophthalmology and Otology, vol. iv., No. I. 1874.

hole in the mirror," and rotated round a central pivot held in its place by a screw. When first constructed, the bottoms of the glasses were covered, the disk being held in its position by a thumb-screw. To clean this surface of the glasses the disk had to be removed. To simplify the instrument still further the back was afterward cut away so that both surfaces of the glasses could be cleaned without removing the screw. The essential difference between Dr. Knapp's instrument with a single disk and mine, was that it simply contained more glasses, and on this principle every additional glass could be claimed by its author to constitute a new ophthalmoscope. But even this arrangement was not an original idea of Dr. Knapp's, for Cohn, of Breslau, had done precisely the same thing two years before Dr. Knapp's instrument appeared.* That this was known to Dr. Knapp, we learn from his own statement in an earlier paper, in which he alludes to "Cohn's modification, in which he puts all the glasses of Loring's three disks into one large disk."

Dr. Cohn, with what would appear to be, in the light of subsequent events, a superfluous piece of magnanimity, did me the honor of describing this instrument as a modification of my own. Dr. Knapp, however, reduces the size of the glasses, and we have not a modification of anything but an entirely "*new* ophthalmoscope." But even this reduction in the diameter of the glasses was not original with Dr. Knapp, for Wecker, in Paris, had previously constructed an instrument with a single disk with a cover, containing twenty-four glasses, the diameter of which was a little less than four millimetres.

The description of this instrument, with a drawing, arrived in this country before Dr. Knapp presented his double disk ophthalmoscope to the Academy of Medicine, at which meeting he alluded in the discussion to this instrument and expressed his doubt whether the diameter of the glasses could be as small as represented. Two months after this statement his single disk ophthalmoscope, with small glasses, appeared. In 1869, or four years before Dr. Knapp's or Wecker's instrument appeared, I presented to the New York Ophthalmological Society, and at a meeting at which Dr. Knapp was present, an ophthalmoscope, made for me by Zentmayer, in which the diameter of the glasses was less than four millimetres. I afterwards discarded these small glasses for two reasons: first, because the expense in making them at that time was very great, and secondly, because I thought, and still do think, that optically† they are not so good as the larger glasses. I surely thought I had the right to return to them however, without the accusation of any infringement, especially by one who had deliberately taken them from another.

Such being the essential principles of the instrument, we come to the accessories. Dr. Knapp lays great stress on the spring for centring the glasses, and with an air of originality. This contrivance was fully discussed by Dr. Dyer, Mr. Zentmayer, and myself, as early as 1869, and was purposely discarded by me so that the glasses might be decentred to avoid reflections. In 1871,‡ Dr. Strawbridge presented a modification of an ophthalmoscope in which, as it is stated in the Transactions of that year, "the disk rotates behind the opening in the diaphragm, and by means of a spring catch, each glass as it rotates, is caused to stop exactly behind the centre of the opening." The maker of this instrument was the same who had discussed the idea with me two years before. In 1872 Dr. Oldham presented to the International Ophthalmological Congress, in London, an instrument which he spoke of as a modification of my instrument, in which this spring catch is used. One of these instruments appeared two years and the other one year before either of Dr. Knapp's instruments. I certainly did not get my idea of the spring from Dr. Knapp.

Now, in regard to another accessory, and that the least important one, the protecting cover for the posterior surface of the glasses. Personally I prefer to have this surface exposed, especially when the disk is surrounded by a rim, as we thus get rid of a source of annoying reflections. But, admitting that I took the idea of the cover from Dr. Knapp's instrument though I had previously discussed its advantages with others—admitting this, it was at least modified in three particulars which did not seem unimportant. First, by making the cover a ring instead of a flat disk we are enabled to see the numbers of the entire series of glasses and turn to any one at once. Secondly, by making the hole oval horizontally we get rid of an annoying reflection which arises from the lateral edges of the hole, and which extends even to this day in Dr. Knapp's instrument, half across the aperture in the mirror. Thirdly, by making the cover swing eccentrically we get rid of all loose screws.

In 1873, Dr. Knapp, when he was trying to introduce his first instrument, with its multitude of useless combinations, observes, "the disks in Loring's ophthalmoscope have not a sufficient number of glasses for the requirements of a careful ophthalmic practitioner.* One year later, at the meeting of the Ophthalmological Society, at Heidelberg, and before a body of experts, he declares, "the series of glasses in Loring's ophthalmoscope are not only sufficient for practical requirements, but are also suitably chosen."† But this was after he had appropriated the series for his "new ophthalmoscope."

At the same meeting no mention is made of any other modification by me except the original one of three disks, although the one with a single disk had at this time been in use in New York and at Dr. Knapp's clinic for some three years. Dr. Knapp finishes his description of his instrument at Heidelberg by declaring: "Now that Loring has lately changed his ophthalmoscope to make it correspond to the one now presented, no other ophthalmoscopes are bought in America" (loc. cit., p. 38). I have no comment to make on this. It will commend itself to those who are at all acquainted with the subject as well as its good taste as its verity.‡

From this statement of facts I may be pardoned for expressing the opinion that it would have appeared to be a little more in accordance with the true state of affairs if Dr. Knapp had said that he had taken from the essential principles of what he calls his instrument from mine, and that the one unimportant particular which had been taken from him had been improved.

To Dr. Wadsworth, of Boston, belongs the credit of having introduced the most material improvement in the ophthalmoscope which has been offered for many years—indeed the most original, so far as

* Zehender, Oct., 1872, p. 307.

† It was to avoid the small glasses on the one hand and the large disk on the other, that my second modification of the single disk containing two concentric rows of glasses was invented. This was presented to the New York Ophthalmological Society in October, 1873.

‡ Trans. Amer. Ophth. Soc., 1871, p. 120.

* Trans. Amer. Opth. Soc., 1873, p. 109.

† Klin. Monatsblätter, Oct., 1874, p. 379.

‡ As a matter of fact, I learn from several of the chief makers, by far a greater number of the cheaper instruments, those with fifteen and sixteen holes, are sold than any others.

writer knows, since Reute proposed the use of the silvered mirror. This consists of a circular mirror of so small a diameter that it can be set at a sufficient angle to prevent astigmatism and yet be in close proximity to the glasses. This mirror can, however, only be used for the upright image. Acting on this suggestion I have modified the ordinary mirror in such a way that, while it possesses the advantages of Dr. Wadsworth's mirror, it is equally applicable for either the upright or inverted method.

EDWARD G. LORING, M.D.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army from May 27 to June 2, 1877.

GREENLEAF, C. R., Surgeon. Assigned to duty as Post Surgeon at Thomas Barracks, Huntsville, Ala. S. O. 85, Dept. of the Gulf, May 25, 1877.

KING, Wm. H., Ass't Surgeon. Assigned to duty at Fort Sully, D. T. S. O. 65, Dept. of Dakota, May 26, 1877.

DICKSON, J. M., Ass't Surgeon. Assigned to duty as Post Surgeon, Jackson Barracks, La. S. O. 82, Dept. of the Gulf, May 22, 1877.

TORNEY, G. H., Ass't Surgeon. Assigned to temporary duty at Custom House, New Orleans, La. S. O. 85, C. S., Dept. of the Gulf.

CROMPTON, L. W., Ass't Surgeon. To accompany battalion 3d Inf. to Holly Springs, Miss., and, upon arrival, assigned to duty as Post Surgeon. S. O. 87. C. S., Dept. of the Gulf.

TAYLOR, M. E., Ass't Surgeon. To accompany battalion 13th Infy. to Baton Rouge Barracks, La., and, on arrival, resume his duties as Post Surgeon at that post. S. O. 82, C. S., Dept. of the Gulf.

SHUFELDT, R. W., Ass't Surgeon. To proceed at once to Fort D. A. Russell, Wy. T., for duty with companies of 5th Cavy. detailed for field service near Cantonment Reno, Wy. T. S. O. 65, Dept. of the Platte, May 22, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending June 2, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
May 26.....	0	5	89	3	59	40	3
June 2.....	1	9	101	2	47	47	3

ANTIQUITY OF METATARSAL AMPUTATION.—Prof. O. F. Hubbard, referring to his article on the above subject in a recent number of the RECORD (Vol. XII., p. 341), writes: "In the third line, '1809' should read '1609,' and in the seventh line, page 315, 'proposed in 1781' should read, 'proposed in 1720.'"

LECTURES ON INSANITY.—During the present month Dr. A. E. Macdonald, M.D., Medical Superintendent of the New York City Asylum for Insane, Ward's Island, will give clinical lectures on Insanity in that institution on the afternoon of Thursday. The profession are invited to attend.

SIMULTANEOUS LIGATURE OF CAROTID AND SUBCLAVIAN OF RIGHT SIDE.—Prof. J. L. Little, M.D., of this city, successfully performed the above operation at St. Luke's Hospital, May 4, for aneurism of first part of the subclavian. The patient was a male, aged 45. The arteries were tied with the cat-gut ligature. The wounds have now healed, and the patient is doing well.

AN IRISHMAN'S IDEA OF A POST-MORTEM.—During the performance of an autopsy by us, an Irishman who happened to witness the removal of the heart and lungs from the body, exclaimed to a bystander, "Bedad, that's rough. I'd die first, before I'd let him do it to me."

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.—The seventy-first annual meeting will be held at Albany, in the Assembly Chamber, commencing on Tuesday, June 19, 1877, at eleven o'clock, and unless the Society should otherwise direct, the following will be the order of business:

TUESDAY, June 19.—*Morning Session.*—The Society will come to order at eleven o'clock, and the services will be opened with prayer. President's opening address.

Announcement of Committees: On Credentials; on Receptions and Arrangements; on Business; on Ethics; on Nominations.

Recess of fifteen minutes for organization of committees and the presentation of credentials of delegates to the Committee on Credentials, and for the registration of the names of permanent members on the roll. During the recess, strangers desiring to attend the meeting, should report themselves to the Committee on Receptions and Arrangements. All business communications, and all papers not entered upon this programme, should be handed to the Business Committee.

Reorganization.—Report of delegates in attendance, and the roll of present members by the Committee on Credentials; and on Receptions by the Committee on Receptions and Arrangements; introduction of delegates and visitors from other societies; communications from County Medical Societies.

Reports of Officers and Committees of the Society: Report of the Treasurer; Report of the Secretary as Librarian; Report of the Censors; Report of Committee on Publication; Report of Committee on Prize Essays; Report of Committee on By-Laws.

Report of Delegates to other Societies: Report of the Delegation to the International Medical Congress; Report of the Delegation to the American Medical Association; Report of Delegates to State Societies. Miscellaneous business, and adjourn at 1:30 P.M., to meet at 3 P.M.

Afternoon Session.—Reading of papers. Remarks and inquiries will be called for after the reading of each paper. Only a few minutes, however, can be allowed to each without special order of the Society. "The Use of Ergot," by Alex. H. Crosby, M.D., of Lowville, Lewis County; "Self-Suspension as a Means of Treatment in Lateral Curvature," by Lewis A. Sayre, M.D., of New York; "Four Cases of Sudden Death—Coroners' Inquests," by J. Kneeland, M.D., of South Onondaga; "Operation for Closure of Cleft of Hard Palate, with Report of Cases," by A. Van Derveer, M.D., of Albany; "An Obituary Notice of James Thorn, M.D."—read by title—by R. H. Ward, M.D., of Troy; "Sanitary Inspection in Schools," by William C. Wey, M.D., of Elmira; "Hydrophobia: Rabies Canina," by John W. Greene, M.D., of New York; "The Forcible and Rapid Dilata-

tion of the Cervical Canal, for the Cure of Anteflexion," by H. T. Hanks, M.D., of New York; "Puerperal Metastatic Irido-Chloroditis," by Thomas R. Pooley, M.D., of New York. Adjourn at 6 P.M. until 8 P.M.

Evening Session.—Papers not reached at one session will be called in the same order at the next session. "Ten Years Inside the Medical Society of the State of New York," by A. W. Tupper, M.D., of Washington County; "Climatic Influence in the Production of Nervous Disease," by A. McLean Hamilton, M.D., of New York; "Punctured Wound of Lung, Diaphragm and Liver, with Recovery," by S. L. Parmelee, M.D., of Watertown; "Report of Case of Fracture of the Base of the Skull, with Recovery," by Joshua B. Graves, M.D., of Corning. Adjourn at 10 P.M. to 9:30 A.M., June 20.

WEDNESDAY, June 20.—*Morning Session.*—Call to order at 9:30, and open with prayer. Minutes of all the sessions of the preceding day; reception of members and delegates from other societies; communications from County Medical Societies, including papers set up for presentation, obituary notices, etc.; reports of officers and committees of the Society. These will be called in the same order as at the first morning session, and the reports not then presented or reached should be offered at this time. Miscellaneous business, and new business. "Discussion upon the Proper Time for holding the Annual Meetings of the Society;" "The Feasibility of Removing the Thyroid Gland in some Cases of Disease, with Illustrative Case," by Julius F. Miner, M.D., of Buffalo; "Pneumonic Fever: Grounds for Considering Acute Pneumonia an Essential Fever, and not Purely a Local Inflammation," by Austin Flint, M.D., of New York; "Two Cases of Convulsive Disorder without Convulsions," by Mary Putnam-Jacobi, M.D., of New York.

At 12 o'clock, or as near that time as the business under consideration will permit, the Report of the Special Committee—Dr. E. M. Moore, of Rochester, Chairman—upon the subject of Establishing a Committee to Determine the Qualifications of Students in Medical Colleges, who are about to enter the Profession; the services of such committee to be tendered to such colleges as may desire them. (See Transactions of 1876, p. 66.) This subject was made the special business for this hour of this session. Time unlimited. "Heredity as a Factor in Pauperism and Crime," by Edward H. Parker, M.D., of Poughkeepsie. Adjourn at 1 P.M. until 3 P.M.

Afternoon Session.—Reading of papers: "Nitrite of Amyl in Pertussis," by George Bayles, M.D., of New York; "Stone in the Bladder," by J. W. S. Gouley, M.D., of New York; "Pseudo-Membranous Laryngitis: Tracheotomy: Relapse and Recovery," by Norman L. Snow, M.D., of Albany; "Jaborandi," by Alexander Hutchins, M.D., of Brooklyn; "Tar Fumigations in Gangrenous Sores," by Lewis Post, M.D., of Lodi; "The Cold Bath in Scarlatina (Clinical Notes)," by C. H. Giberson, M.D., of Brooklyn; "Vaginal Injections," by Frank P. Foster, M.D., of New York; "Some of the Morbid Conditions of the Prostate Gland," by Frederick Hyde, M.D., of Cortland; "Hydrochlorate of Ammonia—Ammoniæ Murias," by C. G. Pomeroy, M.D., of Newark, N. Y. Adjourn at 6 P.M. until 8 P.M.

Evening Session.—Report of the Committee on Hygiene—read in abstract, by A. N. Bell, M.D., Chairman, of Brooklyn; "Certain Points Relating to the Nature and Treatment of Lupus," by Henry G. Piffard, M.D., of New York; "Hereditary Transmission of Disease," by Ira F. Hart, M.D., of Elmira; "Fracture of the Base of the Skull," by P. R. H. Sawyer, M.D., of Bedford; "Hæmaphilia," by James C. Hutchison, M.D., of Troy; "Experience in Shoulder and Arm Presentations," by Israel Parsons, M.D., of Marcellus; "Cases of Wounds of the Synovial Membrane of the Knee-Joint Successfully Treated without Anti-Septic Applances," by George Burr, M.D., of Binghamton. Adjourn at 10 P.M. to 9:30 A.M. of Thursday, June 21.

THURSDAY, June 21.—*Morning Session.*—Call to order at 9:30 A.M., and open with prayer. Minutes of all the sessions of the preceding day; reception of members and delegates from other societies; communications from County Medical Societies; reports of Officers and Committees of the Society; Report of the Nominating Committee; election of officers, delegates etc., for the ensuing year; miscellaneous, unfinished and new business.

"Typhoid Infection of Drinking Water," by E. V Stoddard, M.D., of Rochester; "Action of Mercury," by H. N. Eastman, M.D., of Owego; "Opium Inebriety and the Hypodermic Syringe," by S. F. McFarland, M.D., of Oxford. Adjournment.

AMERICAN DERMATOLOGICAL SOCIETY.—The first annual meeting of the American Dermatological Association will be held at Niagara Falls on the 4th day of September next. "The titles of all papers to be read at any annual session shall be forwarded to the secretary, Dr. L. Duncan Bulkley, N. Y., not later than one month before the first day of the session."

PORTRAITS OF DISTINGUISHED MEDICAL MEN.—F. Berendsohn, of this city, has published photographic copies (vignette size) of portraits of Sir Astley Cooper, and Drs. John Hunter and Richard Bright, of London. They are exceedingly well executed, beautifully mounted, and will make handsome office pictures.

HOMŒOPATHIC COLLEGES.—Some of the London medical journals admit advertisements of homœopathic schools.

TURCO-RUSSIAN WAR.—The Russian Minister of War has been compelled to decline the numerous offers of assistance on the part of French, German and Italian surgeons. Scurvy has made its appearance in the Turkish army.

THE PLAGUE has broken out in Resht.

NO CORONERS IN FRANCE.—There are no coroners in France. Persons who die suddenly are buried twenty-four hours after death on the mere certificate of a doctor. It is only when the death is sufficiently mysterious to excite suspicion that the *procureur* is sent for and orders a post-mortem examination. It can be easily seen that the cautious murderers have a good chance to escape.

NEW YORK HOSPITAL.—All the improvements which experience in hospital construction could suggest, have been made in the New York Hospital building, on West Fifteenth Street. Besides the several large wards there is a recreation room for convalescents, and a number of private apartments for those who by means enable them to pay for such accommodation. As far as the hospital proper is concerned, nothing is left to be desired. With the out-door department the case is quite different.

HOUSE OF RELIEF IN CHAMBERS STREET.—The House of Relief, at 160 Chambers Street, reports 5,455 patients treated in the Dispensary, and 506 in the Wards, during 1876. There were 41 surgical operations, and the ambulance made 978 calls, the average time occupied by each call being 30.7 m.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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AMERICAN MEDICAL ASSOCIATION.

THE recent meeting of the American Medical Association has been as successful as any which has been held during the past few years. The attendance was unusually large, and the interest manifested in the proceedings by the members and delegates was everything that could have been expected. A few questions engaged the attention of the Association, the discussion of which was a little heated, but the utmost good feeling prevailed.

Dr. Davis, one of the founders of the organization—always ready with a speech—gave the address of welcome. The address of the President, Dr. Bowditch, dealt chiefly with questions referring to the working machinery and efficiency of the Association. He touched on several abuses in the working of the organization which have done much to bring it into disgrace in the past. One of these is the present objectionable habit of printing everything that is presented at the meetings in the Transactions, whereby a bulky, diffuse, and nearly useless, but expensive volume is yearly turned out. Another source of weakness referred to is the rule allowing a representative to every ten members of every local society, so that the Association is each year practically made up largely of such men as only care to take a trip, or to spend their vacation in sight-seeing and with agreeable company. Of course this calls together many representative and very fine men, but Dr. Bowditch would have the representation more restricted. He advocated some closer association or union with the profession in Canada. The entertainment of the Association with intoxicating beverages was forcibly, if not deservedly, rebuked. The library and museum of the Surgeon-General's office was, as usual, commended to the aid and support of the profession and Congress. The reference to the necessity of change in the revision of the U. S. Pharmacopœia, although perfectly non-committal, answered the purpose, however, of bringing the subject in a formal way before the Association.

Dr. Squibb made his communication on this question in two parts and under serious disadvantages on account of the pressure of business. His paper was a strong argument in favor of an improved Pharmacopœia, and while it found a large majority of the members opposed to his scheme it left the Association undoubtedly in favor of something better in the way of a national standard. It certainly opened the eyes of the assembly to some of the shortcomings and exclusiveness of the present instrumentality for the decennial revision. His argument went far to convince the members of the groundlessness of the notion that it is impossible for the profession of the United States to establish and have a Pharmacopœia such as it desires.

A memorial was presented from the New Jersey State Medical Society advocating some scheme for improvement akin to that of Dr. Squibb. Dr. H. C. Wood—as might have been expected—made a short speech, strong and forcible, against the plan proposed by Dr. Squibb, when Dr. Davis moved, in the interest of harmony in the Association, that the whole subject regarding the Pharmacopœia be indefinitely postponed. This settled the question in a way entirely satisfactory to Dr. Squibb, who justly complained that, contrary to any intention or desire of his own, he had been drawn into the discussion more in a personal than in a general way, more as an exponent of a principle than the principle itself.

This session of the Association, in its scientific aspect, was more of a success than many of its predecessors. The Sections have all been in thorough organization, and in each important papers were read, which in nearly every case led to animated discussion.

It is in the Sections that the better part of the scientific work must always be done. The chairman of each Section is booked each year for an address in the general session. Each year it is demonstrated—this year with the rest—that it is impossible to make these scientific papers; they are addresses, and are less valuable, scientifically, than the papers read in the Sections.

One of the most scholarly and eloquent addresses of this session was that of Dr. Ezra M. Hunt, of New Jersey, on "State Medicine and Public Hygiene." The meeting was well entertained, too, by the addresses of Dr. Robinson, of St. Louis, on Practical Medicine, and that of Dr. White, of Buffalo, on Obstetrics.

Altogether, then, the Association has been a fine success without the occurrence of any event of great mark.

SANITARY INSPECTION OF SCHOOLS.

THE resolution recently passed by the Board of Education, to refer the sanitary inspection of the schools to the Board of Health, if it means anything, anticipates some very urgent and necessary reforms. It is well known that the school-bill to provide for such inspection failed to pass at the recent session of the

State Legislature, and that such a result was brought about in no small degree by the direct interference of the School Board. Why the latter should now go back on its previous record is somewhat difficult to understand, unless we look upon the action as a mere stroke of policy to blind the public. The inspection will doubtless be made, but what will be gained by it? Nothing more than the old story that the schools are overcrowded, that ventilation and sewerage is defective, that contagious diseases are spread among the children, and that all these things should be remedied. If any new facts shall be obtained they can hardly be in favor of the previous policy of the School Board, which has heretofore been criminally neglectful. But the necessity for such inspections has passed. The unsanitary condition of the schools is well known; what is wanted now is active, intelligent, and radical reform. What hope is there for this when the School Board has the power to do as it pleases with the reports and recommendations which may be sent to it? If the application of the necessary remedies is left to the Health Board there is a reasonable chance that something may be done, but if the School Board itself is to be depended upon to take any action, and if we are to judge the future by the past, we are merely risking hope upon a broken reed. But let us be thankful even for a show of good intentions, and patiently wait the fulfilment of their implied promise.

THE HUNTER'S POINT NUISANCE.

As might have been anticipated, the intolerably offensive smells which are wafted by the east wind over this city from the factories at Hunter's Point, L. I., have aroused considerable public indignation. Probably in no city of equal size has a greater cause for complaint existed with as little hope for a remedy. Our Health Board is powerless to do anything, as the provisions of its charter place the obnoxious factories beyond its jurisdiction. Last winter an attempt was made to pass a law which should give the health boards of large cities the power to control suburban nuisances, but, like all measures which have merely a sanitary bearing, it was easily defeated by the parties interested in perpetuating the nuisance. Far from gaining any relief, the sickening odors are worse than ever, as the means for their manufacture have multiplied in the shape of extensions to the original works. The very intolerableness of the nuisance gives now the best hope for some prompt remedy. It has become now a matter which affects the comfort if not health of the larger portion of the inhabitants of Manhattan Island, and there does not seem to be much of an inclination to submit to the imposition for the sake of mere policy. How this remedy is to be applied until the meeting of the next Legislature does not now appear.

DR. THOMAS B. STIRLING, a prominent practitioner of this city, died suddenly June 10th.

Progress of Medical Science.

THE STING OF THE SCORPION AND ITS TREATMENT.—Dr. Julius A. Skelton, editor of *The Observator Medico*, of Mexico City, has furnished us with an interesting article by Dr. Puerte, on the sting of the scorpion, and its effects, which have been seldom described in medical works. The insects he describes are found in the districts of Matamoras, Izucar, Chautla de la Sal, and the municipalities of Chietla, situated to the south of the city of Puebla. The largest of the scorpions are found in the first-named locality, and they are generally four or five centimetres in length and of an orange-red color, though sometimes brown. They are provided with eight feet, two horns, and a tail, which has four or five rings, the last being the largest and carrying the poison sac. Each of the horns has two articulations, the foremost carrying the poison. The first pair of legs have appendices in the form of pincers.

These insects live in the sugar fields and gardens, where they may be found under stones, or in the foliage of the plants. In towns they find a resting place in the cracks of the timbers, under the furniture, or in the rubbish of uncleanly houses. When an individual has been stung the symptoms may be grouped in three distinct periods. In the first there is heat and pain at the injured spot, general sleepiness, frequent sneezing, restlessness, and slight strabismus. In the second stage saliva is abundantly secreted, there is meteorism, dilatation of the pupils, and a pulse varying between 100 and 120. In the third stage there is trismus, or tetanus. The first period occurs soon after the sting, and lasts from a quarter of an hour to an hour; the second, a little more than fifteen minutes; and the third may be prolonged to three days. The domestic remedies are various. Sometimes ammonia and garlic are applied externally, and watermelon internally. The gum of the white cuaxiote has also given satisfactory results. Dr. Puerte's method of treatment in the first stage consists in administering diaphoretics, together with alcohol of ten per cent. solution in teaspoonful doses every half hour.

If, however, the second stage supervenes, he continues the alcohol and gives a vapor bath, and, finally, a weak infusion of the flowers of the Laurus Cerrasus. In the third period he always makes use of the inhalations of chloroform, and records a successful cure in each instance. Among the native Indians cases of this kind are very frequent, and many of the children die. In all children under four years of age the sting is usually fatal; between six and ten severe but not mortal, while adults never die. Many persons claim to have been stung without experiencing any symptoms. This in Dr. Puerte's opinion, is because the clothing has absorbed the virus, a fact he seems to have proved experimentally. When the naked skin receives the virus, symptoms of poisoning are sure to follow.

CLIMATE AND PHTHISIS.—A change of climate is so often resorted to by persons suffering from phthisis, it would be interesting to note that the investigations of specialists have shown that the occurrence of phthisis decreases or ceases altogether above a certain elevation. Dr. Gleitsmann, of Baltimore, has collected from various sources tables showing the relative mortality according to months, seasons, sex, age, locality, etc. The percentage of deaths in the spring months is shown to be larger than in the other seasons, and this is accounted for by the humidity of the atmosphere and the frequent thaws and rains.

American Medical Association.

TWENTY-EIGHTH ANNUAL MEETING,

HELD IN THE CITY OF CHICAGO, JUNE 5, 6, 7 AND 8, 1877.

TUESDAY, JUNE 5.—FIRST DAY.

THE Association met in Farwell Hall, and was called to order at 11 A.M., June 5, 1877, by Dr. J. Marion Sims, the retiring President, who in fitting words thanked the Association for the honors it had conferred upon him, paid a flattering compliment to the founder of the Association, Dr. N. S. Davis, of Chicago, and with a glowing reference to the labors of Dr. H. I. Bowditch, of Boston, introduced him as the incoming President.

DR. BOWDITCH congratulated the Association most cordially upon its meeting in this the queen city of the West under such propitious circumstances, and expressed the hope that all would retire from the meeting feeling that they possessed good-will toward all men, and that they had learned something which might be utilized for the benefit of suffering humanity, and which could be carried pleasantly with them until transferred from this sphere of earthly activity.

Prayer was offered by Rev. Wm. L. Harris, D.D., LL.D.

DR. N. S. DAVIS, chairman of the Committee of Arrangements, delivered the address of welcome, which was full of pleasing references to the growing city of the West, to her aqueduct, her groves, her institutions of learning, and her commercial advantages. A touching reference was made to the preliminary meeting held thirty-one years ago in the city of New York for the organization of the American Medical Association. In that meeting there were seventy six voters. Of that number only one could be seen in the present meeting, and that member was Dr. W. T. Atlee, of Philadelphia. Nearly all the original number had passed to their final reward. Of the twenty-eight presidents sixteen had gone to their everlasting reward. Reference was made to the death of Dr. Henry F. Askew, of Delaware, an ex-president of the Association. Dr. Davis closed his address by declaring the delegates thrice welcome to the hospitality of the city.

DR. NORMAN BRIDGE, chairman of the Committee of Registration, read the list of delegates whose credentials had been approved, and whose names had been duly registered.

The following gentlemen were elected members by invitation: D. F. Boughton, of Mendota, Wis.; W. H. Bunker, of Cincinnati; J. A. Reed, Dixmont, Pa.; D. Leavitt, and Eichberger, of Terre Haute.

The following gentlemen were elected permanent members: Drs. J. K. Bartlett and E. W. Cross, of Minnesota; Drs. D. A. K. Steele, S. A. McWilliams, John E. Owens, Charles T. Parks, E. O. F. Roler, Charles L. Rutter, D. F. Nelson, J. S. Knox, W. E. Quins, W. S. Nevins, M. P. Hatfield, Thomas Bevan, E. W. Sawyer, and L. H. Montgomery, all of Chicago, and S. M. Hamilton, of Monmouth, Ill.

The President invited the retiring President, and also the delegates from the Canadas, to take a seat upon the platform.

PRESIDENT'S ADDRESS.

Dr. Bowditch then delivered the President's annual address, in which he first referred to the past of the Association, contrasting its first meeting—when it was a body of heterogeneous natures, with nothing especially to unite them—with the large, harmonious meetings it now holds every year. Before its inauguration the profession was disintegrated, and members knew little of one another, except those in their own home circle, while now the Association embraced men from the most distant parts of the country, who were brought face to face at these annual gatherings. Dr. Bowditch looked back on the enthusiasm of the first meeting, and contrasted its spirit with the point-of-order discussions at the business meetings and the wine-drinking at the social gatherings which had been rather too prominent features of some of the Association's meetings. For this and other reasons there had been opposition to the Association. One particular reason was, the general expectations had been raised to too high a pitch for the Association to realize them. Besides, a society made up of so many different elements, coming together only once a year, could not carry on any fine scientific work. The Association should meet more frequently. In fact, what was needed was small and frequent reunions.

The Transactions of the Association, moreover, were too bulky, so that they depressed rather than excited the enthusiasm of the readers. It must be confessed that this was indeed one great reason why the reputation of the Association had been lowered. He made these observations in no merely captious spirit, but because he believed there was no better way to make improvements than by looking fairly at figures. These objections, he believed, as well as others, could be removed, and new vigor be put into the Association.

In the first place, there was chance for improvement in the Sections. There was not enough criticism of the papers read, nor was it exactly the right kind. He thought the Association should adopt the plan in operation at the Smithsonian Institute—not to publish anything until after it had been submitted to and approved by experts, whose decisions were final. The Association should further declare as its rule for the guidance of such experts, that no paper should be deemed worthy of publication which did not give something new to medical science, or which did not present such an analysis or such a new or lucid arrangement of facts already wholly or in part known as to greatly aid the profession. Dr. Bowditch hoped these recommendations would be referred to the Judicial Council, to report at this meeting. To this Council he would also have referred the question of the propriety of having a standing committee of one to procure scientific papers for the annual meeting from the best men in the country.

This Association, to its praise be it said, had also extended an invitation to women to meet with it. Dr. Bowditch favored conducting the public entertainments upon temperance principles, and thought the Association should take the highest ground against the use of intoxicating drinks among its members. Such action would have the most important effect on the noble cause of temperance throughout the land.

Dr. Bowditch also thought that every member of a State Society should be a permanent member of this Association. Dr. Bowditch was also in favor of reduced representation. He would have a Society send one delegate for every twenty or thirty members, instead of one for every ten, and he believed that with this change the honor of being a delegate would be more sought after, and that it would devolve upon the very best men in the profession, which was not always the case at present.

The President also considered at some length the proposition for the union of the American Medical Association and the Canada Medical Association, and stated the arguments for and against the proposed union. The principal objections to it were the present large dimensions of this Association; the fact that, owing to the use of two languages in Canada, joint meetings would be objectionable; the difficulty of arranging the expenses of a united body; and lastly, the confusion which would probably result from each place of meeting being so far distant from the preceding. On the other hand, the physicians in the United States should associate themselves with a body of physicians all of whom had been educated under English influence, and many of whom had pursued their studies in England and obtained their diplomas there. Again, he was inclined to favor this union from the stand-point of civilization itself.

Dr. Bowditch suggested that the matter be referred to the Judicial Council, to report during the meeting on the feasibility of the union.

To the subject of the revision of the American Pharmacopœia, and the proposed rejection of the one in use and the substitution therefor of an entirely new, more modern, and more complete work on that subject, Dr. Bowditch referred at considerable length. He was not prepared to recommend any of the plans yet put forward, because more light was needed on this very important subject. He thought it wise to refer the whole subject to the Judicial Council.

Dr. Bowditch spoke of the importance of State Boards of Health, and impressed upon his hearers the necessity of conversing with, or writing to, their representatives in Congress in reference to the museum and library of the Surgeon-General of the army.

In closing, Dr. Bowditch said that the Association, for the sake of good learning in America, should cordially welcome to its meetings every prominent physician in the country, and if those who did attend the meetings would determine that nothing but what was excellent should be published in its works, then they would be doing a really noble work, and the Association would eventually claim the highest respect of the whole profession. It was growing stronger every year. It had enjoyed a perpetual youth, a stalwart manhood, and, he sincerely trusted, it would live to a genial old age.

On motion made by Dr. Brodie, of Detroit, the thanks of the Association were returned to its President for his interesting address. The address was referred to the Committee on Publication.

Dr. Brodie further moved that a committee of seven be appointed to report upon the recommendations embraced in the President's address.

The first Vice-President, Dr. N. J. Pittman, of North Carolina, announced the committee, as follows: Dr. W. B. Brodie, of Detroit; Dr. S. D. Gross, of Philadelphia; Dr. E. Grissom, of North Carolina; Dr. J. R. Smith, of U. S. A.; Dr. J. R. Bartlett, of Minnesota; Dr. J. P. White, of Buffalo; Dr. J. M. Toner, of Washington.

A number of papers were then read by title and referred to their appropriate sections; after which the Association adjourned to meet at 9.30 A.M. on Wednesday, June 6, 1877.

Wednesday, June 6.—Second Day.

The Association was called to order at 9.30 A.M. by the President. The minutes of the previous meeting were read and approved. A recess of ten minutes was taken to allow the delegations opportunity to select their representatives for the Nominating Committee, and report such selections to the Secretary.

The following volunteer papers were referred to their appropriate Sections: *On Plastic Splints*, by Dr. H. O. Marcy, of Massachusetts; *On Epithelioma*, by Dr. S. P. Breed; *On a New Speculum*, by Dr. E. A. Hildreth, of West Virginia; *On Conservative Surgery*, by Dr. I. N. Quimby, of New Jersey; *A New Instrument*, exhibited by Dr. H. I. Bowditch, of Boston.

Permanent Members.

Dr. Davis submitted the following names for election as permanent members: Drs. F. C. Schaefer, Chicago; W. H. Fitch, Rockford, Ill.; H. Chapman, Hudson, Mich.; G. E. Willard, Chicago; C. C. Hunt, Dixon, Ill.; J. J. Stone, G. Benedict, and J. H. Stewart, of Minnesota; J. N. O'Brien, Plymouth, Wis.; R. Dexter, and J. Vider.

Report on the President's Address.

Dr. Brodie, of Michigan, chairman of the special committee appointed to consider the recommendations embodied in the President's annual address, submitted the following report:

"Your special committee, to whom was referred the recommendations in the President's annual address, respectfully report that they have had the same under consideration, and recommend as follows:

"1. The Smithsonian plan: It is believed that if the officers of the Sections should perform their duties promptly under the existing regulations, there would be no necessity for further examination.

"2. In the matter of a standing committee to procure papers on scientific subjects, it is or should be part of the duty of the chairmen of the Sections to obtain suitable matter for their respective Sections, at as early a time after their appointment as possible; and it is believed this would effect what the President proposes.

"3. On permanent members and representation, we do not think it best at the present time to make or suggest any change in the present plan of organization.

"4. On the union of this Association with the Canada Medical Association, we consider the same impracticable, and are of opinion that the present system of intercourse between the societies by delegates serves to meet the requirement.

"5. On the question of the Pharmacopœia, we deem it inexpedient at the present time to take any action in the premises."

On motion made by Dr. Bowditch, the report was laid upon the table.

Revision of the U. S. Pharmacopœia.

The hour of ten having arrived, Dr. E. R. Squibb of New York, spoke on the revision of the United States Pharmacopœia. He stated that he was read to report on this important matter, but saw from the programme that only one hour had been allowed for it. He would be unable to do more than to make brief allusion to the matter in that time, and was unwilling to dispose of it in any such cursory manner. It was deserving of a long and deliberate consideration. Yet he was willing to conform with the wishes of the Association and do as directed.

Dr. Davis, on behalf of the Committee on Arrangements, said that though this subject had been assigned to this hour, it might be laid on the table, at the close of the hour, for further consideration.

It was decided, on motion of Dr. Gallaoher, to hear Dr. Squibb to the end of the hour.

The report, as read by Dr. Squibb, involved a full résumé of the arguments *pro* and *con* on the

revision of the Pharmacopœia. It involved copious quotations from Dr. Wood's well-known pamphlet on the subject. It denied the allegations of Dr. Wood that it was the intention, by the proposed innovations, to abolish the old Pharmacopœia, but asserted that the design was to improve the present plan by introducing new and important revisions. Nor was it designed to interfere with the "Dispensatory," but merely to have a Pharmacopœia without a Dispensatory. It was intended by the new revision simply to undertake a work which the old Pharmacopœia did not do. He explained that it was intended by the revision to make the Pharmacopœia explain its own assertions, or definitions, without the aid of a Dispensatory. He referred to many mistakes in the Pharmacopœia of 1877, showing little improvement since 1873, and which should be remedied. In refutation of the argument that the whole profession, by the proposed plan, would be under the control of one man, he averred that it should be remembered that that man would be the President of the American Medical Association; and that no more impropriety obtained in that than in the representation of an entire Government by one Minister, as often occurred in national matters.

The time having arrived for another order of business, the subject was referred to the Committee on Arrangements to appoint an hour for its further consideration.

The next order of business was an

ADDRESS BY THE CHAIRMAN OF THE SECTION IN PRACTICAL MEDICINE, ETC.,

which was delivered by Dr. P. G. Robinson, of Missouri. The address consisted of a review of the progress made in medicine during the past year. It had been fully shown that accumulations of sewerage and the like became centres of contagion. Especial attention was directed to the etiology of specific fevers, notably the typhoid, and reference was made to the outbreak which occurred in Lancashire, England, in consequence of using milk supplied from one dairy. The attention of the Association was called to an article in the July number of the *American Journal of Medical Sciences*, where the cure of a case of rabies canina by the use of strychnine was reported by Dr. Watson, of Jersey City. In his case there was no aversion to water shown, and for that and some other reasons a number of physicians held that it was not a true case of hydrophobia. The great question to be settled was that of diagnosis.

Dr. Robinson then passed to a consideration of the use of salicine and salicylic acid in the treatment of acute inflammatory rheumatism. These had been used with great advantage in various hospitals, both abroad and at home, and there was no doubt that a means of alleviating this terrible disease had been found.

Reference was made to the value of counting the blood-corpuscles in certain affections, and quotations made from several French authors.

In physiology reference was made to the labors of Ferrier, Fritz and Hitzig, Dalton, Mitchell, Hughlings Jackson, and others, regarding the localization of function in the brain, the function of the corpora quadrigemina, the duality of the vaso-motor system, etc. During the past year several drugs had been brought into use, and special mention was made of the use of gelseminum in the treatment of facial neuralgia, salicylic acid as an internal and external remedy, erythroxylon coca, and several other articles. The address was well received, and referred to the Committee on Publication.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON OBSTETRICS.

Dr. Jas. P. White, of Buffalo, N. Y., delivered the address, and began by saying that the most notable event of the year was the formation of the American Gynæcological Society, and its transactions and publications were of great interest to the medical profession. Dr. White then called attention to a number of books and pamphlets in relation to this particular branch of medical study which were published last year.

Special and favorable mention was made of the writings of the late Dr. John S. Parry, and his book was reviewed to considerable length. The papers of Dr. Isaac E. Taylor, read before the New York Academy of Medicine, received special notice, and he was inclined to differ with Dr. Taylor as to the value of Cæsarean section when compared with craniotomy. The theory of Dr. Maxson, of Syracuse, N. Y., regarding the value of the knee-and-elbow position in the management of cases of malposition of the fœtus, received favorable mention. Pneumatic pressure, by Dr. Campbell, of Georgia, was noticed and believed to possess some value. Dr. White was pleased to notice the growing sentiment in favor of the use of the obstetrical forceps, and exhibited a pair made in accordance with his own views regarding the construction of the instrument. The management of placenta prævia was under consideration when the hour expired.

COMMITTEE ON NOMINATIONS.

The Committee on Nominations was announced as follows: Dr. J. M. Keller, Arkansas; Dr. L. M. Lovelace, California; Dr. C. R. Bissell, Colorado; Dr. H. M. Knight, Connecticut; Dr. W. Marshall, Delaware; Dr. W. H. Ross District of Columbia; Dr. R. Battey, Georgia; Dr. C. H. Rawson, Iowa; Dr. F. D. Fitch, Illinois; Dr. G. Sutton, Indiana; Dr. W. L. Schenck, Kansas; Dr. D. W. Yandell, Kentucky; Dr. J. C. Egan, Louisiana; Dr. W. B. Cobb, Maine; Dr. H. O. Marcy, Massachusetts; Dr. C. H. Ohr, Maryland; Dr. L. Connor, Michigan; Dr. C. P. Adams, Minnesota; Dr. T. B. Lester, Missouri; Dr. W. M. Compton, Mississippi; Dr. S. G. Dearborn, New Hampshire; Dr. S. Lilly, New Jersey; Dr. J. P. Gray, New York; Dr. E. Grissom, North Carolina; Dr. W. W. Jones, Ohio; Dr. S. D. Gross, Pennsylvania; Dr. W. H Palmer, Rhode Island; Dr. W. H. Geddings, South Carolina; Dr. D. J. Roberts, Tennessee; Dr. A. E. Carothers, Texas; Dr. William R. Hutchinson, Vermont; Dr. F. D. Cunningham, Virginia; Dr. J. C. Hupp, West Virginia; Dr. J. T. Reeve, Wisconsin; Dr. J. R. Smith, United States Army.

Dr. Nichols, of the District of Columbia, President of the Association of Superintendents of Insane Asylums of the United States, was then introduced by Dr. N. S. Davis, and the Association adjourned to meet at 9.30 A.M., June 7, 1877.

Thursday, June 7, 1877.—Third Day.

The Association was called to order at 9.30 A.M. by the President.

After the transaction of the usual introductory business,

Dr. N. S. Davis, Chairman of the Committee of Arrangements, recommended the following gentlemen as

MEMBERS BY INVITATION:

Dr. H. P. Godfrey, of Berlin, Wis.; Dr. J. R. Moffatt, Prairie du Chien; Dr. R. G. Floyd, Whitehall, Wis.; Dr. J. P. Everett, Dixon, Ill.; Dr. Tru-

man Miller, Chicago; Dr. Thomas R. Douglas, Pennsylvania; Dr. C. N. Fitch, Chicago.

The following gentlemen were recommended and elected

PERMANENT MEMBERS:

Samuel Tibbits, M.D., Kirkwood, Ill.; G. M. Chamberlain, M.D., Chicago; C. G. Simmons, M.D., Chicago; Charles W. Chaffee, M.D., Chicago; William M. Kaull, M.D., Princeton, Ill.; James H. Wallace, M.D., Monmouth, Ill.; John A. Meek, M.D., Jonesboro, Ind.; Josiah Rogers, M.D., Ripon, Wis.

Dr. Norman Bridge, Chairman of the Registration Committee, read the list of delegates enrolled since the first day. The whole number in attendance was 700.

Report from Judicial Council was made and adopted.

A communication from Dr. H. I. Bowditch upon the relative value of incision and aspiration in the treatment of empyema and hydrothorax was referred to the Surgical Section.

TREASURER'S REPORT—THE EXPENSE OF THE PRIZE ESSAY.

The Treasurer had the honor to report that, under positive instructions of the Association, the Prize Essay had been published at a cost of some $6,000. This unusual outlay, in addition to the unusual volume of the Transactions, left the treasury in an exhausted condition, as it had practically given to each member $9 in value for $5 received.

In this, his last report, after twenty-two years of service, it remained for the Treasurer to thank the Association for its long-continued confidence, and to regret that in leaving the treasury solvent, he could not leave a more abundant surplus.

The amount in the treasury was $172.72.

REPORT OF THE COMMITTEE ON PUBLICATION—REASONS FOR DELAY IN APPEARANCE OF VOLUME.

The committee was constrained to acknowledge that the late date at which the volume for 1876 (vol. xxvii. of the series) was issued needed explanation. The delay of a few months subsequent to the annual meeting was, of course, due to the fact to which attention has many times been called, that the edition which it was proper to print could not be arrived at except by means of answers to circulars sent to the members. It was unpleasant to find fault at all, but to be compelled to complain of annually recurring neglect, if not downright inefficiency, was an exceedingly ungracious task. The Committee on Publication was profoundly convinced that the proceedings of a medical body like the American Medical Association could be adequately reported by men of medical education alone. No skill or training could compensate for the lack of this qualification. And yet for several years past the committee had been annually delayed by a mass of copy prepared by professional reporters, of which a large portion had been unfit to be put into the hands of the printer. Had it not been for the kind co-operation of several members who had attended the last session of the Association and who had participated in the discussions, the Committee of Publication would have been hopelessly embarrassed, and would have been forced to eliminate paragraph after paragraph from the minutes. To these causes the delay in the issue of the volume has been principally due; and in view of them the committee thought it could consistently claim the indulgence of the Association.

The Prize Essay was put through the press as promptly as the very elaborate character of the work permitted.

Of volume xxvii. 1,250 copies were printed; 1,207 copies have been distributed to members, and 43 copies are on hand.

Of the Prize Essay, 1,250 copies were printed; 1,067 copies have been distributed, leaving 183 copies on hand.

PRIZE ESSAYS.

Dr. Davis, from the Committee on Prize Essays, reported that only one essay had been submitted in time to receive examination, and that the committee did not regard as entitled to receive the prize offered by the Association.

Another essay had been received, but it came too late to have an examination, and it was recommended that the author have the privilege of withdrawing his essay. It was recommended that it be presented for competition next year, sufficiently early to secure examination. The report was adopted.

LIBRARIAN'S REPORT.

Dr. Atkinson, as Secretary, read the report for the year of William Lee, Librarian. It showed that 187 distinct titles had been added to the library the past year, making the number now embodied in the library 817 distinct titles, and 2,034 volumes. The report showed that the library, on general principles, was in good condition.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON STATE MEDICINE AND PUBLIC HYGIENE.

Dr. Ezra M. Hunt, of New Jersey, read an elaborate and able paper on the subject embraced within his jurisdiction. He reviewed all that many men had done to diffuse health and life-saving practices throughout the world the past year. He spoke of what was needful for more salutary and sanitary medical treatment of the public. He dwelt upon the ways by which this important subject should be brought to the notice of the profession, as one of the profoundest importance. He urged that the Association, as representing the profession largely, should urge the more thorough teaching of this sanitary law in all the medical schools. He thought the profession had reason to congratulate itself that this country was fast perfecting its system of public hygiene. The address was properly referred.

THE U. S. PHARMACOPŒIA.

Dr. E. R. Squibb resumed his report upon the above subject at the point where it was discontinued in yesterday's proceedings. He combated with logical force the arguments against the proposed revision, and with equally forcible diction spoke of the advantages of the new scheme. He closed his remarks by saying that there were three courses for the Association to pursue: First to lay the whole matter on the table, leaving it exactly as it was, on the ground that the Association was not necessarily involved in revising the Pharmacopœia at all; second, the Association might make a Pharmacopœia, such as it saw fit, allowing it to take its chances with others. He thought this latter plan would not eventuate a Pharmacopœia which would be accepted by the army and navy. The third plan was for the Association to appoint a committee to consider the matter in detail and report in 1878, on which occasion all the State societies should send their delegates, thoroughly instructed as to their ideas on the subject.

Dr. Squibb moved that the whole matter be la

upon the table, but objection being made by Dr. Davis that such a proceeding would deprive the opponents of the revision of the Pharmacopœia from expressing their sentiments, Dr. Squibb withdrew his motion and the matter was thrown open for discussion.

Dr. Squibb wished to state that he did not appear as the advocate of either one or the other plan, but was willing to abide by the decision of the Association. He simply preferred that the first course should be followed, as by laying the matter on the table he would be relieved from further responsibility on this mooted question.

Dr. H. C. Wood, of Philadelphia, who had issued a pamphlet in opposition to the scheme, from which Dr. Squibb had read, spoke at some length. He maintained that no action was necessary to be taken by this Association, and that the only thing necessary to make the Pharmacopœia better was for the physicians of this country to awaken to a realization of their duty to make it so, of attending the conventions and doing their duty toward improving the book.

He deeply deplored the fact that this matter was awakening and protracting dissension among the elements of this Association.

Dr. Brodie, of Detroit, submitted the following resolution:

"*Resolved*, That a committee of five be appointed by the President, to whom shall be referred the paper of Dr. Squibb and other papers on the subject of the Pharmacopœia, with full authority to examine into the whole question as to the propriety of this Association being a factor in whole or in part in this publication, and report at the next annual meeting."

Pending the adoption of this resolution, Dr. N. S. Davis took the floor, and indorsed with earnestness the remarks of Dr. Wood. He regretted that this old matter should drag along through the annual meetings, occasioning discord and disputation. He thought that the only duty this Association had to perform in instituting a new Pharmacopœia was to see to it that such improvements were made as were necessary.

Dr. Brodie withdrew his resolution, and Dr. Davis moved that the subject be postponed indefinitely. Carried.

REPORT OF THE NOMINATING COMMITTEE.

Dr. S. D. Gross, Chairman of the Committee, made the following report, which was accepted and adopted by the Association.

For President, Dr. T. G. Richardson, of Louisiana. Vice-Presidents: Dr. J. P. White, of New York; Dr. M. Gunn, of Illinois; Dr. G. W. Russell, of Connecticut; Dr. A. Dunlap, of Ohio. For Chairman of the Section of Medicine, Materia Medica, and Physiology, Dr. A. L. Loomis, of New York; for Secretary, Dr. J. H. Etheridge, of Illinois. Chairman of Section of Obstetrics and Diseases of Women and Children, Dr. E. W. Jencks, of Michigan; for Secretary, Dr. H. A. Marey, of Massachusetts. Chairman of Section of Surgery and Anatomy, Dr. H. H. Smith, of Pennsylvania; for Secretary, Dr. E. Z. Early, of Arkansas. Chairman of Section on Medical Jurisprudence, Chemistry, and Psychology, Dr. W. Kempster, of Wisconsin; for Secretary, Dr. E. A. Hildreth, of West Virginia. Chairman of Section of State Medical and Public Hygiene, Dr. J. L. Cabell, of Virginia; for Secretary, Dr. E. J. Marsh, of New York.

The same committee also recommended that the next annual meeting be held at Buffalo, N. Y., commencing on the first Tuesday in June, 1878.

The Association then adjourned, to meet at 9.30 A.M., Friday, June 8, 1877.

Friday, June 8, 1877.—Fourth Day.

The Association was called to order at 9.30 A.M.

The President, Dr. H. I. Bowditch, in the chair.

The minutes of the last meeting were read and approved.

Dr. S. Lilly presented a memorial from the New Jersey State Medical Society with regard to the U. S. Pharmacopœia. It was entered upon the minutes.

MEMBERS BY INVITATION AND PERMANENT MEMBERS.

Dr. C. M. Fitch, of Chicago, was elected a member of the Association by invitation; and Drs. L. H. Chew, of Napierville, Ill., and S. O. Ritchie, of Chicago, were elected permanent members.

A list of charges were presented against the Michigan State Medical Society, the import of which was that it had aided and abetted the Michigan University in graduating scholars in an irregular and exclusive medical course of study. Referred to Judicial Council.

STATE BOARDS OF HEALTH.

Dr. Atkinson submitted the report of the Permanent Secretary, made in conformity with an order issued in 1875, on State Boards of Health, showing that circulars had been forwarded to the Executive of each State in which a health board had not already been organized, urging the need and utility of such boards, and soliciting that the subject be brought before the Legislature; that State Boards now existed in Alabama, California, Colorado, Georgia, Illinois, Louisiana, Maryland, Massachusetts, Minnesota, Mississippi, North Carolina, New Jersey, Tennessee, Virginia and Wisconsin, and that resolutions had been introduced into other State Legislatures to effect the establishment of boards; and suggesting that the committee be continued.

This report was ordered to be entered upon the minutes.

MEDICAL OBSERVATION AND RECORD.

The Secretary also read a report made by Dr. Edward Seguin, of New York, and Dr. J. J. Woodward, U. S. A., on the subject of Uniformity in Medical Observation and Record, showing the paramount need that existed for such uniformity, and recommending that the Association send delegates to the International Convention to be held in Geneva, in 1877–78, who should advocate the devisement and institution of a plan to secure more systematic operation in that matter. The report was adopted

The Secretary moved that Thomas M. Drysdale, of Philadelphia, be appointed a delegate to foreign Medical Associations; and that Clifton E. Wing, of Boston, be appointed delegate to the Canada Medical Association. These gentlemen were so appointed.

The minutes of the Judicial Council were entered without reading.

REPORTS FROM SECTIONS.

Reports from the Chairmen of the Sections on Obstetrics, State Medicine and Public Hygiene, Surgery and Anatomy, Medical Jurisprudence, and Practice of Medicine were duly submitted by the Secretary and referred to the Committee of Publication.

REPORT ON NOMINATIONS.

The Nominating Committee submitted the following recommendations for officers in addition to those reported yesterday:

Assistant Secretary—Dr. E. W. Brush, New York.

Committee of Arrangements—Drs. Thomas F.

Rochester, J. F. Miner, E. R. Barnes, C. C. Wyckoff. M. B. Folnelle, W. C. Phelps, E. W. Brush, all of New York.

Committee of Publication—Drs. W. B. Atkinson, T. M. Drysdale, A. Fricke, S. D. Gross, C. Wistar, R. J. Dunglison, of Pennsylvania, and William Lee, of the District of Columbia.

Treasurer—Dr. R. J. Dunglison, of Pennsylvania.

Librarian—Dr. William Lee, of the District of Columbia.

Committee on Library—Dr. Johnson Eliot, District of Columbia.

Members of Section of State Medicine and Public Hygiene—Drs. J. Cochran, Alabama; A. M. Carrigan, Arkansas; W. F. Cheney, California; C. Denison, Colorado; C. A. Lindsley, Connecticut; William Marshall, Delaware; T. Antisell, District of Columbia; J. P. Logan, Georgia; H. A. Johnson, Illinois; T. M. Stevens, Indiana; A. G. Field, Iowa; D. W. Stormont, Kansas; S. Branders, Kentucky; S. M. Brennis, Louisiana; E. F. Sanger, Maine; C. H. Ohr, Missouri; H. I. Bowditch, Massachusetts; H. P. Baker, Michigan; C. M. Hewitt, Minnesota; Wirt Johnston, Mississippi; J. W. Trader, Missouri; M. W. Russell, New Hampshire; E. M. Hunt, New Jersey; E. Harris, New York; J. Comegys, Ohio; B. Lee, Pennsylvania; E. M. Snow, Rhode Island; R. A. Kinlock, South Carolina; Z. A. Atchison, Tennessee; A. E. Carothers, Texas; I. L. Cabell, Virginia; L. C. Butler, Vermont; John Frissell, West Virginia; E. S. Griffith, Wisconsin; G. W. Belton, Florida; C. J. O'Hagan, North Carolina; John S. Billings, United States Army; Joseph Wilson, United States Navy.

Committee on Necrology—Chairman, Dr. J. M. Toner, District of Columbia; Secretary, W. H. Ross, District of Columbia; Members, Drs. J. W. Barclay, Alabama; T. E. Murrell, Arkansas; Martin Baker, California; G. W. Russell, Connecticut; L. P. Bush, Delaware; W. W. Johnson, District of Columbia; T. S. Hopkins, Georgia; J. H. Hollister, Illinois; J. Moffat, Indiana; S. P. Thrall, Iowa; L. P. Yandell, Sr., Kentucky; S. C. Gordon, Maine; A. L. Morris, Massachusetts; D. J. McKern, Missouri; W. W. Breakey, Michigan; E. C. Cross, Minnesota; A. J. Steele, Missouri; John Blaine, New Jersey; N. J. Pittman, North Carolina; J. Jones, Louisiana; George M. Smith, New York; George Mitchell, Ohio; W. C. Warriner, Oregon; H. C. Wood, Pennsylvania; C. W. Parsons, Rhode Island; A. N. Pally, South Carolina; J. B. Lindsley, Tennessee; J. H. Stalnaker, Texas; W. D. Hooper, Virginia; Darius Mason, Wisconsin; O. F. Fassett, Vermont; P. F. Whitehead, Mississippi; W. L. Schenck, Kansas; L. G. Hill, West Virginia; R. W. Hazlett, United States Army; J. Wilson, United States Navy.

Judicial Council—Drs. J. K. Bartlett, Wisconsin; F. Staples, Minnesota; E. Grissom, North Carolina; W. F. Robertson, ——; S. Lilly, New Jersey; W. M. McPhutres, Wisconsin; and A. Z. Woodward, Vermont.

The foregoing in place of the seven whose term of office expires at this meeting by constitutional limitation. Dr. P. O. Hooper, Arkansas, in place of Dr. A. Dunlap, whose term expires in 1878.

Committee on Prize Essays—Drs. E. M. Moore, T. Lothrop, W. Miner, H. R. Hopkins, and E. W. Dean, Buffalo.

The report was adopted.

REPEALING THE TARIFF ON QUININE.

A series of resolutions were introduced by Dr. J. W. Singleton of Paducah, Kentucky, indorsing the Morrison bill in Congress in declaring that quinine should be relieved of the tariff imposed upon it, and were unanimously passed.

Dr. H. M. Smith, of Philadelphia, introduced resolutions expressing the regret of the Association at the illness of the former President, Dr. George B. Wood, and extending sympathy to him in his illness.

Dr. J. W. Singleton, of Kentucky, introduced a resolution expressive of the satisfaction felt at the unanimity fast coming to exist between the profession in the North and South, which was seconded by Dr. Grissom, of North Carolina, and unanimously adopted by the Association.

Dr. Edward Seguin, of New York, was made Chairman of the delegation to attend the International Convention to be held in Geneva; and Dr. Lewis A. Sayre was elected delegate to the British Medical Association.

Thanks were tendered to Francis Gurney Smith, for his efficiency in transacting the duties of Chairman of the Committee of Publication, from which position he has retired, after many years' service.

A similar compliment was paid to the retiring Treasurer, Dr. Caspar Wistar.

An amendment to the Constitution was introduced making provision for the formation of a

SECTION ON OPHTHALMOLOGY AND OTOLOGY.

It went over under the rule.

RECOMMENDATIONS CONTAINED IN THE PRESIDENT'S ANNUAL ADDRESS.

Dr. Bowditch at this point resigned the chair, and took up the subject of the recommendations in his annual address, which had, at a previous session, been laid upon the table, through a motion to refer them to a committee. He deplored the system now existing for publishing the papers presented at the various sections. Many of them were published without being read, and were not fit to be published at all. He regretted this state of affairs exceedingly, and especially that such publications should be permitted to go abroad. He submitted the following resolution:

"*Resolved*, That the Association recommend to the Chairmen of the Sections, at any place at which we may hereafter meet, the propriety of obtaining from our ablest associates in various parts of the country papers to be presented to the Sections, and that due notice of the names of the writers be given in the medical journals before the meeting."

He moved also that all papers to be published be submitted to the examination of experts whose names should be unknown, and only the most worthy should be published.

These resolutions elicited general discussion and numerous amendments.

On motion of Dr. James P. White, of Buffalo, the entire matter was referred to a committee of five, to report at the next annual meeting, of which committee Dr. Bowditch and Dr. N. S. Davis were to constitute two members.

Dr. Woodward moved the adoption of the following resolution:

"*Resolved*, That from this meeting and hereafter the practice of printing in the Transactions of the Association the so-called verbatim reports of the debates in the Sections be discontinued, and that the reports of the Sections be limited to the papers presented and recommended by the Sections for publication, and such minutes as may be actually read before the Section." Adopted.

Dr. Hildreth, of West Virginia, moved that no paper be referred to the Committee on Publication unless it had actually been read before the Section. Laid on the table.

A communication was read from members of the profession in Buffalo, expressing satisfaction at the decision of the Association to hold its next meeting in that city, and promising hospitality.

Dr. Bowditch resumed the chair, and Dr. Brodie, of Michigan, submitted resolutions, tendering thanks to the people of Chicago for their hospitality during the present meeting, to the Committee of Arrangements, etc.

Pending the adoption of these resolutions, Dr. Woodward, of Washington, made a few remarks pleasantly eulogistic of the city of Chicago and its citizens.

Dr. E. R. Squinn rose to a question of privilege regarding the disposal of his report upon the U. S. Pharmacopœia.

On motion, made by Dr. Toner, of Washington, Dr. Squibb was permitted to withdraw his report.

President Bowditch invited the President-elect, Dr. T. G. Richardson, of Louisiana, to a seat upon the platform, and then delivered his retiring address. He thanked the Association for the distinction it had conferred upon him the past year, and closed his remarks by congratulating the Association upon the era of good feeling at present existing between all sections of our country. "Last year South Carolina extended her right hand of fellowship to Massachusetts, and this year Massachusetts extends her hand to Louisiana." "God bless the Union, and let all the people say Amen!"

The act of hand-shaking between Dr. Bowditch and Dr. Richardson was greeted with a burst of applause.

Dr. Richardson made an appropriate response, and as he remarked that God was to be praised that we were again an "unbroken National family of States," the applause was most hearty. He thanked the Association for the honor it had conferred upon him.

The Association then adjourned to meet in Buffalo, N. Y., the first Tuesday in June, 1878.

SECTION ON THE PRACTICE OF MEDICINE.

Dr. P. G. Robinson, of Missouri, Chairman.
Dr. B. A. Vaughan, of Mississippi, Secretary.

Tuesday, June 5, 1877.—First Day.

The Section met at 3 P.M., and was called to order by the Chairman.

TREATMENT OF CROUPOUS PNEUMONIA.

In absence of Dr. A. B. Palmer, of Ann Arbor, Mich., the author of a paper upon the above subject, it was read by Dr. N. S. Davis, of Chicago.

The paper principally dealt with the effects of quinine in the treatment of acute pneumonia. After detailing the nature of the disease, and describing the various methods of treatment, Dr. Palmer submitted his particular method. When called to a patient within twelve or twenty-four hours after the chill, or at any time before any considerable exudate has occurred, he immediately gave from six to ten grains of quinine, together with from one-fourth to one third of a grain of morphine, which almost invariably, in a short time, from half an hour to two hours, induced free perspiration and a reduction of the temperature. Then he repeated the quinine in doses of from four to eight grains once in from two to three hours, and unless all pain and special uneasiness was relieved, he added another but usually a smaller dose of morphine in four or six hours, but by all means continuing the quinine in one of the last-mentioned doses until from thirty to fifty, and sometimes sixty, grains were given. Sometimes from twenty to twenty-five grains would be sufficient, given in these divided doses, or, if preferred, in doses somewhat smaller, but more frequently repeated. But as the large quantity was harmless and might be needed, he preferred to give at least thirty, and oftener as much as forty grains in from twelve to twenty-four hours. The effect desired, and certainly as a rule produced, was a decided reduction of temperature, a marked diminution in the frequency of the pulse, a decided moisture of the skin, or free sweating, a slower and more easy respiration, a relief from pain and the feeling of fulness in the chest, a diminution of the cough and of the tenacious and bloody character of the expectoration, and, in short, not only was there a checking of the fever, but of all the evidences, general and local, of the pulmonary engorgement and inflammation, and the quantity of the medicine to be given depended much upon the completeness of the effects produced. The slight deafness and ringing in the ears, which might or might not result from these doses was a matter of very little consequence, was almost always temporary, and should not influence the quantity given. A small quantity of quinine would produce these phenomena with some, while large doses would fail to do so with others, and neither in pneumonia nor in ague were they the measure of the medicinal effect of the remedy or an index of the quantity that would be required or borne. As a rule, all the treatment required after this was a gentle laxative, or, if the tongue was much coated, a few grains of blue mass, followed in a few hours by a mild saline cathartic, and that in turn followed by some mild eliminative mixture.

Discussion followed, and was participated in by Drs. Gallagher, of Pennsylvania; Hibbard, of Indiana; Scott, of Ohio; Murphy, of Cincinnati; Rooker, of Indiana; Yandell, of Kentucky; Todd, of Indiana; Carpenter, of Iowa, and Bailey of Kentucky.

It is easy to imagine a line of discussion which might be pursued upon this subject, and so it was that blood-letting, tartar emetic, cold baths, Ziemssen's Cyclopædia and all its dangerous and beneficial teachings were thoroughly canvassed. The opinion seemed to prevail that uncomplicated pneumonia in an otherwise healthy subject had a tendency to recovery.

Dr. John Morris, of Maryland, then read a paper upon

"THE EFFECTS OF REMEDIES IN SMALL DOSES,"

in the course of which he deduced the following: First, that the true physiological effect of remedies might best be obtained by the administration of small doses frequently repeated [doses of calomel, iron, quinine, digitalis, tartarized antimony, ipecac, opium, gelseminum, squills, ergot, etc.]; second, that medicines thus given were accumulative in their operation; third, that the effect of remedies is greatly increased by combination, the manner of preparation, the time and mode of administration, etc.; fourth, that large doses of medicine frequently acted as irritants, that they produced an abnormal state of the blood, as was evidenced by such conditions as narcotism, alcoholism, iodism, ergotism, bromidism, etc.; fifth, that more special attention should be given at the bedside to the influence of remedial agents, to the end that a greater certainty may be exercised in their prescriptions.

Dr. Morris asked that he might be allowed the privilege of printing this paper in any medical journal he might select as having been read before that Section of the Am. Med. Association. The request was granted.

The Section then adjourned.

WEDNESDAY, JUNE 6, 1877.—SECOND DAY.

The Section was called to order at 3 P.M., by the Chairman, Dr. P. G. Robinson.

NEW INSTRUMENT.

DR. H. I. BOWDITCH, of Boston, exhibited a mechanical appliance consisting of bands so arranged as to keep the head and chest in a favorable position during violent attacks of asthma. Dr. Bowditch mentioned a number of cases in which this appliance had been of great efficiency. The inventor of the apparatus was Dr. George E. French, of Portland, Me. Dr. Squibb, of Brooklyn, moved that a cut of the apparatus exhibited by Dr. Bowditch be inserted in the volume of Transactions.

REPORT ON CLINICAL AND METEOROLOGICAL RECORDS, BY DR. N. S. DAVIS, OF CHICAGO.

DR. DAVIS explained that the object of this work was to get at the actual etiology of acute diseases, a subject of which very little was known. It was sought to determine the relation between meteorological conditions and the origin of disease. He gave the figures in the case of bowel disease, by way of showing what the work was. In his own practice, in 1875, he had one hundred cases of bowel complaint, of which fourteen began in June, sixty-eight in July, eleven in August, and seven in October. The mortality tables showed that the deaths from bowel complaints were about alike in July and August. This discrepancy was explained by the fact that many persons who were taken sick in July do not die till August. In the same months of 1876, he had ninety-three cases of bowel complaints. Fifteen began in June, of which nine were diarrhœa, five cholera morbus and infantum, and one was dysentery. Fifty-five began in July, of which twenty-eight were diarrhœa, fourteen cholera morbus, and thirteen dysentery. Twenty-three began in August, of which two were diarrhœa, four cholera morbus, and seventeen dysentery. Dr. Davis read corresponding figures from Davenport, Omaha, and Cairo. In these four cities, there were in the practice of the physician reporting, in 1875, two hundred and ninety cases of bowel complaint, of which forty-four began in June, one hundred and fifty in July, sixty-seven in August, and twenty nine in September. Not a case began in the other eight months of the year. In 1876 the observers in three of the cities reported one hundred and sixty-nine cases, of which all but four cases began in the four months named. Of the one hundred and sixty-five cases in those four months twenty-one began in June, eighty-three in July, forty-three in August, and eighteen in September. The figures showed that more than half the cases in this climatic zone began in July.

Omitting cases of dysentery, there were in 1875, in four cities, two hundred and twenty-nine cases of bowel complaint, of which thirty-seven began in June, one hundred and thirty-two in July, forty in August, and fourteen in September. Of the sixty-one cases of dysentery, seven began in June, eighteen in July, twenty-one in August, and fifteen in September. In 1876, omitting dysentery, there were one hundred and twenty-two cases, of which twenty-four began in June, sixty-five in July, twenty in August, and thirteen in September. Of the forty-seven cases of dysentery, one began in June, eighteen in July, twenty-three in August, and five in September. It would appear from these facts that the causes operating to produce diarrhœa, cholera morbus, and cholera infantum began in June and attained their maximum development in July, while the causes of dysentery attained their maximum in August. The causes of these diseases depended for their activity on conditions found only in the warm months.

Looking more particularly into the dates of the cases under examination Dr. Davis showed that of the fourteen cases in his practice in this city in June, 1875, all began after the 19th of the month. Of the forty-four cases in the four cities beginning in June, 1875, only five began earlier than the 19th. His conclusion was that the bowel affections, so characteristic of this temperate climate, began invariably with the first week of continuous high temperature, and that every subsequent occurrence of several days and nights of continuous high temperature caused new attacks to be increased in number throughout the month of July, less in August, and still less in September; that it was not simply the extreme of heat, but its duration, which determined the number of attacks; that this continuous high heat, to be efficient in producing these affections, must follow a protracted season of cold; and that, if we compared these deductions directly with statistics of mortality, we should find them to conform in every particular in that the high rate of mortality followed exactly the same line. That fact was regarded as one of great importance in connection with sanitary measures which were to be adopted for the protection of life in infants; preventive measures must strike with the first week of consecutive high temperature. These conclusions were corroborated by quotations from mortality tables.

INFLUENCE OF COLORADO CLIMATE ON CONSUMPTION.

DR. CHARLES DENISON, of Colorado, continued the report made last year upon the above subject, by citing the history of several cases of consumptives who had been benefited by a residence in high altitudes. Dr. Denison's argument gave a large amount of statistical information concerning the history of Colorado as a sanitarium. A very full record of six unfavorable and six favorable phthisical cases was given by way of illustrating the effects of the climate upon patients differentiated by variety of affection. The conclusion reached by the essayist most interesting to the general public would seem to be, that he believed the generally-accepted idea that consumption could only be successfully treated climatically during its first stages was not an absolute truth. "The truth was, the systemic influence of extensive disease in the first was often much greater than slight inroads of phthisis in the third stage." The favorable influence of high altitudes in phthisis was best shown in the incipiency of chronic inflammatory and hemorrhagic cases, and in others in proportion as these were characteristic. The unfavorable influence of high altitudes in phthisis was shown as the disease approached or was complicated with the following conditions: Cardiac disease associated with increased labor and abnormal activity; the stage of "softening" in acute cases (especially with uniformly rapid pulse and high temperature) associated with extensive deposit, variable nervous state and lack of courage to do, in order to be well.

DR. BOWDITCH, of Boston, regarded it as unadvisable to send patients away from home who had reached certain stage of phthisis. In cases in which the disease

was not far advanced change of climate might be beneficial.

Dr. Ulrich, of Pennsylvania, believed the greatest benefit would come from a radical change in the surroundings of the patient, both mental and physical, and that such change could be effected at home.

Dr. Benton, of Cleveland, favored the high altitude of Colorado because it was inhabitable. Other high altitudes might not be inhabitable.

Dr. Kingsley, of St. Louis, referred to the fact that patients went from St. Louis to Colorado, improved considerably, returned, and shortly after their return died because of the rapid development of the disease. The paper was further discussed by Drs. Scott, of Ohio, Heddens and Kingsley, of Missouri, and Steeman, of Ohio. The report was referred to the Committee on Publication, and the Section adjourned.

Thursday June 7, 1877.—Third Day.

The Section was called to order at 3 P.M. Dr. P. G. Robinson, Chairman, in the chair.

REPORT OF THE COMMITTEE ON BOVINE VACCINATION, BY DR. H. A. MARTIN, OF MASSACHUSETTS, CHAIRMAN.

The report was entirely the work of one member of the committee and he alone was responsible for what was said. The report was divided into sections embracing a historical account of animal vaccination; description of animal vaccination; alleged disadvantages; statistics; peculiarity of animal vaccination; advantages of animal vaccination; and suggestion regarding the proper method to make animal vaccination accessible to the profession gratuitously, instead of the matter of bargain and sale, as it is at present. Animal vaccination was introduced by Dr. Martin in the year 1870.

The alleged disadvantages had been:

1. That it was dangerously violent; that was an incorrect statement. It was also exempt from erysipelas.
2. Communication of other diseases. There was no authentic case in which disease had been communicated except herpes circinatus.
3. That it did not take easy. That was not true.
4. That it did not keep well. Animal virus would keep for an indefinite length of time.
5. Vaccination with living lymph was an uncertain process. That objection was believed to be groundless, and that vaccination with fresh animal lymph, if properly managed, need not fail.
6. It was expensive. That should not be so, and the government should establish stables and furnish an unlimited supply gratuitously.

The alleged advantages were:

1. An unlimited supply of virus could be furnished with exceptional security.
2. Impossibility of contamination from disease.
3. It was always protective when vaccination and revaccination were practised. Humanized virus was not always protective.

The report was referred to a special committee consisting of Drs. Bowditch, Wheeler, and Wigglesworth, of Boston.

THE RECOGNITION AND MANAGEMENT OF THE GOUTY STATE IN DISEASES OF THE SKIN.

Dr. L. D. Bulkley, of New York, read a paper upon the above subject, in which he desired, from a clinical stand-point, to impress upon the minds of the profession the value and necessity of recognizing the gouty state in many diseases of the skin. The subject was considered under three heads:

1. The importance of recognizing certain skin diseases which are the early manifestations of gouty disease:
2. The importance of recognizing the gouty state in connection with certain diseases of the skin.
3. Management of the gouty state, especially in the early period when the skin lesions are most apt to manifest themselves.

The evidence of the gouty state was considered in detail.

The paper was discussed by Drs. Hibbard, of Indiana; Cabell, of Virginia; Scott, of Ohio; Ulrich and Duhring, of Pennsylvania. The paper was referred to the Committee on Publication.

CHRONIC DISEASES OF THE RESPIRATORY SYSTEM.

Dr. F. N. Davis, of Chicago, reported the result obtained by analysis of 965 cases of chronic pulmonary disease which had fallen under his observation during the year 1875. The report was referred to the Committee on Publication.

It was discussed by Drs. Scott, of Ohio; Lester, of Missouri; Waterman, of Indiana; Ulrich and Gallagher, of Pennsylvania.

The following papers were read by title and referred:

Therapeutics of Cancer, by Dr. Theodore A. McGraw, of Detroit.

Climatic Resorts of Europe and America Compared, by Dr. George E. Walton, of Cincinnati.

The Section then adjourned.

SECTION OF OBSTETRICS AND THE DISEASES OF WOMEN AND CHILDREN.

Dr. James P. White, of Buffalo, Chairman.
Dr. Robert Battey, of Georgia, Secretary.

Tuesday, June 5, 1877.—First Day.

Dr. Byrd, of Illinois, presented a paper, which was read by Dr. Battey,

ON SOME OF THE DISEASES REQUIRING DILATATION OF THE FEMALE URETHRA.

A number of cases were cited. The first was that of a vascular growth entirely surrounding the meatus of the urethra. It had been treated as a stricture. With the écraseur and scissors, a small vascular growth was removed without difficulty. Subsequent dilatation of the urethral canal entirely cured the urethrismus. The case was illustrated by drawings of the parts, with the growth *in situ* and after removal.

Other cases were cited to illustrate the method and ease of dilating the female urethra, for vesical tenesmus, etc.

In the discussion, Dr. Marcy, of Massachusetts, said that in one case he had removed a growth as large as a cherry. The removal was not dangerous, and three years had elapsed without a recurrence.

Dr. Smith, of Iowa, had removed such growths in two cases with the scissors, without difficulty or danger.

Dr. Jenks, of Michigan, remarked that in all instances these growths should be removed, and that no complicated instruments were needed to dilate the female urethra. He used conical rectal bougies of different sizes, until the finger could be easily passed.

Dr. Jackson, of Chicago, thought it often difficult to find these flat and but slightly elevated growths within the urethra. To facilitate the diagnosis and removal, he used a conical glass speculum, with a fenestrum, into which the growth dropped. The

base of the growth he usually touched with fuming nitric acid.

Dr. Marcy, of Massachusetts, said that he had always used the method and speculum spoken of by the last gentleman, thinking that was the usual procedure.

Dr. Kimball, of Massachusetts, presented a paper, read by Dr. Martin,

ON EXTIRPATION OF THE UTERUS.

After giving an account of the early history and results of the operation, and considering in detail the observations of Péan and Caternault, the writer proceeded to examine the question, Is the operation ever justifiable? It was a sad comment that nearly nine in ten cases resulted in death. In Scotland all cases were fatal except the three successes of Keith. Death was caused by shock, hemorrhage, inflammation, and septicæmia.

A case was detailed which the reader said might be called a specimen case. A woman had presented herself to him with a hard, movable tumor, measuring seven or eight inches in its longest diameter, which was easily recognized as an interstitial fibroid. The patient was sent away, and told that nothing could be done for her. Two years afterwards she returned, but so changed that she was not recognized, nor was the diagnosis of the tumor at that time made out. The patient insisted upon an operation, which was undertaken under the conviction that the tumor was as likely to be ovarian as uterine. Upon opening the abdomen an unusual appearance was presented by the omentum, which had never before been met with by the writer, namely, innumerable cysts, varying in size from a robin's egg to a pea, everywhere studded the omentum. The omental mass was strangulated and cut off. The entire uterine mass was then removed; it weighed thirty-one pounds. The long pedicle was stitched into the lower end of the abdominal incision. Recovery was perfect at the end of the twelfth week.

Without denouncing the operation, it was one which was justifiable only in extremely rare instances. During a period of twenty years it had seemed to him justifiable in but two or three instances. Undoubtedly it was most often performed on account of an error in diagnosis.

Dr. Martin, of Massachusetts, spoke of the noted New England case, in which it was not known till after the operation that the uterus had been removed; the operation was recovered from.

Dr. Kimball, of Massachusetts, feared it might look like vanity, but the first operation which he did in 1853 was the first, so far as he knew, which was undertaken deliberately, the diagnosis being established. Altogether, he had operated twelve times, with six recoveries. One was an instance of pedunculated fibroid, and in another instance the uterus was amputated through its body. Trenholme has once removed the uterus on account of the rupture of a cyst, with symptoms of septicæmia; the woman died.

The writer spoke of one class of cases in which the operation was especially contraindicated: those in which the growth of the tumor was downward, occupying the pelvic excavation.

Dr. Reamy, of Ohio, alluded to a series of five cases belonging to Dr. Thos. Wood, of Ohio, in which there were three recoveries.

Dr. Smith, of Iowa, had once performed the operation under an error in diagnosis. A trocar was driven into the intumescence which drained away some two ounces of amber-colored liquid; it was thought to be from an ovarian cyst, and gastrotomy was performed. The tumor was found to be uterine, and the mass was removed; it weighed fifteen pounds. Upon the upper surface of the growth a collapsed cyst was found into which the trocar entered. The woman died on the sixth day.

Dr. Sims, of New York, regarded the paper a valuable contribution to the literature of the subject, and its appearance now as most timely, especially as some were carried away with the idea that the operation should be performed much more often. He believed the operation was sometimes justifiable; but was not always so in Péan's cases. He since had performed the operation three times; in two instances the patients died of shock, and the third woman died of septicæmia; in this case there was sloughing of the broad ligament, and some eighteen ounces of pus were found in the abdominal cavity.

Dr. Jennings, of Arkansas, inquired of Dr. Kimball, what percentage of cases died of septicæmia.

Dr. Kimball, of Massachusetts, replied that peritonitis and septicæmia usually coexisted. One case died from hemorrhage; the rest died from peritonitis and septicæmia. In one case there was a most singular manifestation of septicæmia. The patient had survived three weeks, when a lump appeared in one parotid region, which grew so rapidly that the poor woman was asphyxiated.

Dr. Marcy, of Massachusetts, asked him how long after the recovery did the patients live.

Dr. Kimball, of Massachusetts, replied that so far as he knew they were all now alive, except in one instance. In one case he had removed an ovarian tumor eleven years before ablating the uterus. In another subject he removed the ovaries with the uterus.

Dr. Atlee, of Pennsylvania, remarked that he was physically unable to take part in the discussion of this interesting subject, but he wished to say that, in his opinion, the operation should never be performed save when death was inevitable, and always as a *dernier ressort*.

Dr. Byford, of Illinois, believed the operation was never justifiable except as a last expedient; and before deciding that the operation should be performed in a given case we should separate the cases in which death is really imminent from those in which it is only apparently so. For instance, it was well known that these uterine tumors were often the seat of inflammation, when it would seem that the patient's life was endangered; but inflammation was a process by which nature lessened the tumor, sometimes caused it to disappear, and was often recovered from. The danger of death from exhaustion, and especially from pressure upon the neighboring vital viscera, were among the indications which might justify the removal of the uterus.

Dr. Grant, of Canada, had listened with great pleasure to the paper and the discussion. So far as he knew, the opportunities for observations upon this subject had been extremely rare in Canada. He had known of but two cases—one followed by death, and one followed by recovery.

Dr. Mary Thomas, of Indiana, knew of one instance of recovery from removal of uterus, but thought the operation should be resorted to with great hesitation.

Dr. White, of New York, rose to thank Dr. Kimball for his very able paper; very few men, however, who had had such success were as modest. In other words, the success attained by Dr. Kimball hardly warranted the conclusion that the operation was almost never justifiable, which had been expressed by so many present. Why wait till death was inevitable and the patient

was moribund? Why not give the patient the advantage of the only hope at a time when the operation promises most? He believed in going forward. The early ovariotomists were greatly opposed, and the whole world was slow in accepting, what had been demonstrated in America, that ovariotomy was a justifiable operation. The operation under consideration had a great future. He declared himself conservative, but not timid. Three cases had occurred in his practice. Some weeks since he was sent for to do the operation, but the order was countermanded because the woman was supposed to be dying. The woman did not die, and he was again sent for and removed an immense fibro-cystic tumor. The woman died from shock. A year earlier the woman might have been saved by the operation. In another case the woman died from exhaustion. The third case was operated upon under an error of diagnosis. It proved to be uterine instead of ovarian, and the uterus was removed through the neck. This woman recovered.

Dr. Bozeman, of New York, read a paper entitled

KOLPOKLEISIS AS A MEANS OF TREATING VESICO-VAGINAL FISTULÆ.

Was the procedure ever necessary? The conclusions of the writer were that by a systematic and proper preparatory treatment vesico-vaginal fistulæ could always be closed by operation without ever necessitating the destruction of the vagina. The paper consisted chiefly of a correspondence between Prof. Simon, of Heidelberg, and the writer, upon a series of cases upon which both had operated in concourse, in Heidelberg. The reader exhibited his graduated set of vaginal dilators, the systematic use of which distinguished the author's operation.

WEDNESDAY, JUNE 6, 1877.—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman.

Dr. Bozeman, of New York, read some statistics in addition to his paper of yesterday. Of twenty-five cases of vesico-vaginal fistula, collected from European journals, eighteen were condemned to kolpokleisis; two died from the operation. The paper was not discussed.

Dr. Marcy, of Massachusetts, presented a paper

ON THE CONGENITAL ABSENCE OF THE UTERUS.

Several interesting instances were cited. One, aged 29, had never menstruated; had no pubic or axillary hair; externally was well formed; had no sexual instinct. There was a vagina, but every mode of examination failed to elicit the existence of the uterus. She suffered regularly from symptoms of suppressed menstruation. The woman had two sisters who had similar evidences of this imperfect development. In another case, spoken of in the paper, the woman, aged 32, had no periodic manifestations. In a third instance there was a slight uterine mass, which was threaded, as it were, by the passing sound.

Dr. Webner, of Indiana, had recently seen a woman, married for two years, who had never menstruated, and in whom he could find no signs of a uterus.

Dr. Staples, of Minnesota, had recently dissected a fully grown fœtus, whose external parts appeared those of a female. There was no vagina and no uterus; ovaries were present; no anus; the intestine ended in the bladder.

Dr. Warner, of Massachusetts, had met with an instance in which neither vagina nor uterus existed. The woman was otherwise perfectly formed.

Dr. Sims, of New York, had met with five cases; but, unlike Dr. Marcy's case, the vagina in every instance was wanting. In all instances the subjects seemed perfectly formed; and one particularly was a beautiful woman. But, in all instances, the uterus and vagina were absent. In one instance the subject was madly in love; but marriage was, of course, interdicted. In regard to the sexual instinct, the speaker said he had now been in practice forty-two years, and had never been guilty of asking a woman if she experienced the sexual desire.

Dr. Dean, of New York, spoke of the liability of error in deciding that there was no uterus. A case was detailed, that of a girl, aged 15, who had not menstruated. The vagina was imperfectly formed, but not positively wanting. The entire staff of the Rochester hospital agreed that the uterus was absent. Subsequently an ill-defined tumor was felt above the symphysis pubis. An incision was made upward in the direction of the vagina which revealed an os and a uterus, from which drained away a quantity of retained menstrual matter. The girl has since menstruated.

Dr. Bozeman, of New York, mentioned a case, otherwise perfectly formed, but in which the uterus and sexual instincts were wanting.

Dr. Seymour, of Troy, N. Y., mentioned a case in which the uterus was not altogether wanting, but in which the growth of the organ had been early arrested, perhaps by a severe attack of scarlatina, from which she suffered in her childhood.

She had never menstruated, and the sexual instinct and female modesty and shame were entirely wanting. It occurred to him that the uterus might be made to grow; and, with this end in view, stimulating injections were used; soon the uterus began to grow and the woman afterwards began to menstruate. Subsequently her womanly instincts began to predominate, and rather to his detriment; for she blackened his reputation in a large section of his city, by detailing everything that had been said and done to her during her treatment. The speaker protested against its being declared indelicate to ask a woman concerning her sexual feelings, or concerning anything that could throw light upon the case under consideration. Was it more impertinent to inquire about the sexual feelings than to know about the perfectly formed external parts?

Dr. Parvin, of Indiana, had met with one case in which there was no evidence of a uterus. He spoke particularly of a class of cases in which the uterus was not absent but undeveloped The function of menstruation was sometimes absent and sometimes vicarious. The uterine mass was often no larger than the end of the little finger. Passing the sound into its minute opening was quite "like threading the mass," as Dr. Marcy very aptly said. Such cases were important, because amenable to treatment, and the development of the uterus could sometimes be artificially completed. The speaker confirmed Dr. Sims in his views of the indelicacy of asking a woman concerning her sexual feelings. He knew not how to ask such questions. He was ignorant of the euphony with which to clothe the thought.

Dr. Battey, of Georgia, had seen four cases in which the uterus was apparently absent. In one, the vagina was about an inch and a half long, no uterus was felt; the woman was barren, and had never menstruated.

Dr. White, of New York, had seen ten or more such cases. One woman had previously consulted a practitioner because coitus was imperfectly executed.

She was assured that the deformity could be remedied, and submitted to an operation. A hole was made, which satisfied her husband, but she was not able afterwards to hold her water, which was constantly running away. An examination showed absence of vagina and uterus, and a large hole in her bladder. This vesical fistula the speaker closed by operation. In this case, when the finger was passed into the bladder, the ovaries could be easily felt upon both sides. In another case, the creature had been brought to him to be fitted with a truss. He found what appeared to be the labia of the vulva, and one labium contained a testicle, upon which the truss was to be fitted. In still another instance, he found the labia containing testicles—the subject being brought to him to decide whether the creature should be christened George or Georgiana.

Dr. Byford, of Illinois.—The experience of the gentlemen who had spoken surprised him. He was not before aware that there were so many women in the world without a uterus. Two cases occurring under his observation were spoken of. In each there was an undeveloped uterus. In one, galvanism was tried, without result; the subject was more than thirty years old. In another case the uterus was at first about an inch and a half in length, but it subsequently suppurated and dwindled in size. In all he had seen some eight doubtful cases.

Dr. Crawford, of Illinois, mentioned in this connection the case of a child, now eighteen months old, who had menstruated every twenty-eight days for seven consecutive periods. The period was four days in duration. The amount of blood lost was nearly that lost by the adult. In all other respects she was like other infants.

Dr Reamy, of Ohio, mentioned a case in which menstruation had never occurred till the age of 21. By operation a vagina was made and the presence of the uterus made out. He protested against the declaration going out from this body, that it was indelicate or impertinent to ask a woman concerning her sexual tastes. It was our duty to inquire concerning everything which could throw light upon the case under consideration.

Dr. Cutter, of Massachusetts, was requested to exhibit the electrolytic apparatus devised by him for the

ELECTROLYSIS OF UTERINE TUMORS.

The success of the operation has been greater since he devised the new grooved electrode. These pointed electrodes are driven into the most accessible part of the mass, sometimes through the abdominal walls, at other times through the vagina or rectum. The electrodes must always be separated from each other by at least a half inch of tissue; more than this was better. The operation should always be performed under ether. The duration of the sitting varied from five to fifteen minutes.

Dr. Hildreth, of West Virginia, exhibited a new

VAGINAL SPECULUM

which he had improvised. Its shape was like a common glass speculum, but its walls were made of wires, which ran lengthwise, and were separated from each other by half-inch spaces. The advantage possessed by it is that the vaginal wall could be seen at any point.

Thursday, June 7, 1877.—Third Day.

The Section was called to order by the President.

Dr. Smith, of Iowa, read a paper on

HOW TO DECIDE THE BEST POSITION IN EVERY LABOR.

The reader had been early convinced, by a case of extreme lateral obliquity of the womb, that the position of the woman had much to do with the progress of labor. In every case we should carefully find out the relations of the axis of the gravid uterus to the entrance of the parturient canal, and place the woman in that position which was most favorable to the entrance of the fœtus into the pelvis.

Dr. Parker, of Massachusetts, reported a case of a

LARGE GROWTH CONNECTED WITH THE CLITORIS,

which was removed. The subject was a prostitute, aged twenty-five years. She had been insane more than three years. It was known that, at least three years ago, the tumor of the clitoris was as large as an orange. It was now much larger. Under ether, the growth was removed, without difficulty, with the écraseur. The mass weighed four and a half pounds. Its gross appearances were those of a syphilitic condyloma. Immediately, upon recovering from the effects of ether she was apparently perfectly sane, and remained so. She exclaimed to the operator: "God bless you! Why have you not done this before?" She also said that she had another trouble, namely, her stomach. A fulness over the region had been often noticed. During her stay in the almshouse she had been noticed to vomit frequently. She had a morbid predilection for cabbage, which she would eat in great quant ty. and immediately reject.

The patient died three days after the removal of the tumor, though from no effects of the operation.

An autopsy revealed the stomach nearly full of hay, rolled in a large circular mass, and one large ball had been recently driven through the pylorio orifice, which probably caused death.

Photographs were shown of the tumor *in situ*, and of the stomach on section, containing the hay.

Dr. White, of New York, completed the reading of his Annual Report on Obstetrics and Gynæcology, which had been presented at the morning session of the Association. The reader dwelt particularly upon the treatment of inversion of the uterus by gradual repositi.n. By means of the appliance devised by him, the reader said that all inverted uteri could be replaced, no matter the length of duration of the inversion—thirty years or six months.

The paper concluded with a plea for bedside instruction in obstetrics; which system the speaker instituted in this country more than thirty years ago.

Dr. Sims, of New York, contrasted the infrequent use of the forceps in labor years ago with the humane use of the instrument at this time. Some years ago, Dr. Quackenbush, then quite a young man, startled the New York State Society by saying that he had used the forceps in fifteen hundred labors. This was perhaps the beginning of the frequent use of the instrument which now prevailed in this country, but to no such degree abroad. The speaker alluded to a paper by Dr. Newman, of Denver, in which the use of short forceps was advocated in the last stage of labor. A very short forceps was exhibited which the speaker thought (erroneously) was devised by Dr. Newman to be used in the last moments of labor.

Dr. Quimby, of New Jersey, spoke against such frequent use of the forceps; it was meddlesome and dangerous midwifery. The case should be left to nature for at least six or eight hours. The forceps should only be used when nature shows signs of failing.

Dr. Fairbanks, of Michigan, remarked that no ignorant practitioner should be entrusted with the use of the instrument. Thirty years ago a practitioner

would have been condemned, and called a butcher, if he had used the forceps.

Dr. Jenks, of Michigan, said it was no argument against the use of an instrument that in the hands of unqualified men it could do harm. He should be sorry if the teaching now prevailed of waiting, as was taught formerly. When the parts were ready for delivery there could be no advantage in waiting. Under these circumstances delay in delivery was an indication for the use of the forceps.

Dr. Reamy, of Ohio, said the time had gone by for measuring the powers of nature by the watch. The intelligent practitioner should be ready to interfere at any moment and at any stage of the labor. Damage to the woman and child was caused much more often by too great delay than by the too early use of the forceps. The speaker said of the particular forceps now before the Section that it possessed many faults, which he pointed out, and concluded by saying that it was a beautiful instrument, but at the same time it was a useless thing—a mere toy.

Dr. Woodward, of Vermont, also thought the instrument in question a useless instrument, and spoke of the advantages of the Hodge forceps. He was formerly taught to use the forceps to save the child; but he also used it now to save the woman's bladder, which he did by its early use.

Dr. Battey, of Georgia, said that it had been claimed as an advantage that the forceps could be applied without the knowledge of the woman. He had more than once been guilty of asking the question which had been so severely condemned yesterday, but he had never used the forceps clandestinely.

Dr. Byford, of Illinois, said that in his practice, when the pains failed and the head did not advance, he interfered without reference to time. He wished to defend the little instrument which had been so severely abused. The criticisms made by Dr. Reamy might apply to Dr. Newman's forceps, but the instrument now exhibited was not Newman's forceps, but Sawyer's forceps, which was a modification of Newman's, and a hundred per cent. better than the original. He had seen the instrument in actual use, and its excellence was very apparent. He had no hesitation in saying that, for the class of cases which the author had in mind, it was the best short forceps in the world.

Dr. Garrish, of Indiana, protested against such teaching going out from this body, advising such frequent use of the forceps. During a practice of twenty-five years, in but ten or twelve cases did he use the forceps. The instrument should be reserved for those cases in which nature had failed.

Dr. Sims, of New York, was especially asked to give his views on

STENOSIS UTERI.

The speaker detailed the history of the surgical treatment of the affection. Simpson was its author, who claimed that no damage resulted from the operation; but in two weeks from its introduction in New York, two cases of dangerous hemorrhage had resulted in his practice. Subsequently, when the speaker visited Edinburgh, he found that accidents did occur, even in the hands of the great master himself.

As first performed, the operation consisted in cutting through the vaginal cervix upon both sides with a metrotome. Soon after he began to do the operation, a case presented itself to his notice, of extreme retroflexion, that admitted the sound with the greatest difficulty. It occurred to the speaker to amputate the posterior lip of the cervix, which was greatly elongated, and with the knife to cut along the posterior aspect of the cervical canal. This was the origin of the operation, which was known as Emmet's operation, and which he wished to be known as Sims's. In the operation which he now performed, the knife was used, and the scissors were discarded. If the lips of the cervix were symmetrically developed, the lateral incisions were made with the knife; but if the posterior lip was elongated the posterior incision was made. The depth of the incision varied with the size of the neck; the substance was cut nearly two-thirds through.

The speaker was particular to guard against all possibility of hemorrhage, by tamponing the cervix with cotton soaked with liq. ferri subsulphas 1 part, water 2 parts. The success of the operation depended upon the subsequent dilatation of the cervix. All operations would be futile unless a systematic dilatation of the cervix was carried out.

Dr. Parvin, of Indiana, reminded the Section that other matters were treated of in Prof. White's paper that merited discussion. In regard to the induction of premature labor in cases of placenta prævia, he wished to say that, in his opinion, the procedure should never be resorted to, save when the child was visible and the woman in great danger from imminent hemorrhage.

Dr. Seeley, of Illinois, exhibited

A NEW CERVICAL DILATOR.

It consisted of a silk bag outside of a rubber sack. Any shape could be made which was desired. A tube was carried into the sack to its fundus for the purpose of holding a metallic sound, by means of which the dilator was held within the cervical canal to be dilated. Another tube connected the body of the dilator with the syringe by means of which the dilator was distended. A disadvantage possessed by the Barnes dilator was that it slipped out of the canal; in this instrument a sound secured its retention.

Dr. Sims, of New York, exhibited Fowler's pessary, which the speaker called almost a universal pessary. In principle it was like the Hodge, but was much more bulky, being a deep, cup-like shell of vulcanite.

Dr. Fitch, of Illinois, pointed out several defects possessed by the instrument, chief of which was its great bulk. Its large surface bearing upon the vagina would do injury to the part. The opening in the anterior part of the instrument, to facilitate its removal, was a fault; because through it there was danger of the soft parts prolapsing and becoming strangulated.

The Section then adjourned.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 3 to June 9, 1877.

Gray, C. C., Surgeon. To report in person to the Commanding General, Dept. of the Missouri, for assignment to duty. S. O. 119, A. G. O., June 4, 1877.

Hall, W. R., Asst. Surgeon. To accompany the troops withdrawn from Alaska, and upon his arrival at Fort Stevens, Oregon, report to the Post Commander for duty as Post Surgeon. G. O. 13, Dept. of the Columbia, May 23, 1877.

Corbusier, W. H., Asst. Surgeon. Assigned to duty at Chattanooga, Tenn. S. O. 111, Dept. of the South, June 5, 1877.

Correspondence.

OPHTHALMOSCOPE MAKING.

To the Editor of The Medical Record.

Sir:—I hope you will grant me a reply to Dr. E. G. Loring's personal attack, published in your last issue, under the title, "Historical Note on Modern Ophthalmoscopes." It was the loss of time caused by the necessary frequent interchange of the three disks in Loring's first ophthalmoscope, that led me to construct my double-disk instrument, of which the above-mentioned note says such hard words. Yet, not a few expert ophthalmoscopists found it good, and use it still.

The series of 24 glasses which Dr. Loring determined upon is rational, and based as much as is practical, on a refractive interval of $\frac{1}{48}$, which by Donders had been used for other purposes. 24 seems about the smallest number of correcting glasses that would meet the requirements of a practiced ophthalmoscopist. It would be easy to put this or a greater number in one disk of convenient dimensions, if the size of the aperature in the mirror could be reduced at will. On this point a series of experiments gave me the result that the best ophthalmoscopic picture is obtained by a mirror aperture of 3.5 to 3.75 millimetres in diameter. (*See Archives of Ophthalm. and Otol., IV. p.* 31.) This was the basis from which I started in determining the size of the auxiliary glasses, and finding that they could be small enough to put 24 in one row at the periphery of a single disk, I had the instrument made which I described. Since it sufficiently differed from those then in use, in particular from Wecker's, by having another and much simpler mechanism, and from Loring's, by having his *larger series in one row, the glasses centred and covered*, I described it as a new ophthalmoscope, it being, of course, as all the others, only a modification.

The simple and convenient instrument rapidly found favor, and soon afterwards Dr. Loring constructed another single-disk ophthalmoscope, with the same diameter of the lenses, the 24 glasses placed in one row centred by a spring-catch, and covered as in mine, with the only difference that the cover consisted, not in a plate (which would have protected the glasses better), but in a movable ring. This ring leaves all the numbers of the glasses open to view, the great advantage of which, I fail to see; and, "*by making the ring swing vertically we get rid of all loose screws.*" * There is only one screw in my ophthalmoscope. I have used the same instrument daily for some years, and the screw is not loose yet. Dr. Loring, we all know, gave the subject of ophthalmoscope making thorough consideration, but if he thinks that "*small glasses are optically not so good as large glasses,*" why did he adopt them? It is not inconvenient to have the disk and the glasses somewhat larger, and the reflexes from the disk disappear entirely.

If "*he discarded, in* 1869, *the spring for centring the glasses .....*, *in order to avoid reflections*," why did he take it up again later?

If he "*personally prefers to have the posterior surface of the glasses exposed .....*, *to get rid of a source of annoying reflections*," why did he cover them? Apart from this, I should like to know, how the coving plate could produce reflexes, if the upper aperture were large enough?

And why did Dr. Loring adopt all these arrangements only after he had found out that my single-disk ophthalmoscope was favorably received?

Truly, so long as he does not prove that his single-disk ophthalmoscope, with 24 glasses, was made before mine, I have nothing to take back of what I have written or may have said. H. Knapp, M.D.

New York, 25 W. 24th Street, June 10th, 1877.

* This and the following quotations—the italics are mine—are taken from Dr. Loring's "Historical Note." K.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending June 9, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
June 2	1	9	101	2	47	47	3
" 9	0	3	75	3	62	29	4

Death from Nitrous Oxide.—Mr. G. M. Harrison, aged 53, a surgeon in good practice, and formerly Lecturer on Medical Jurisprudence in the Manchester Royal School of Medicine, died on March 27th, while under the influence of nitrous oxide gas, administered for the purpose of having a tooth extracted. Mr. Harrison, it appeared, being unnerved and excited, partly from the suffering he had undergone, and partly from the want of proper food, which the condition of his mouth had prevented him from taking, insisted on the inhalation being pushed until he should snore, and—for at any rate part of the time—held the mouthpiece in his own hand and inspired very vigorously. The first attempt at extraction was made before he was fully insensible, and was abandoned until more of the gas had been given. Two teeth were then removed. Symptoms of syncope ensued after the operation, and the dentist sent for medical assistance. On the arrival of a surgeon, Mr. Harrison was pronounced to be dead. At the post-mortem examination there was found some fat about the heart; the cavities on the right side were distended with blood, while those on the left side were empty. The lungs were gorged with dark blood. All the other organs were healthy.

Another Case of Gastrostomy.—M. Lannelongue, of Bordeaux, reports that he has practised this operation under the following conditions: A man who had been suffering from stricture of the œsophagus for six months, found himself utterly unable to swallow any liquid food. Passage of instruments was impossible, and the patient was much enfeebled. Accordingly, gastrostomy was done in pursuance of the plan adopted by M. Verneuil in his successful case. No difficulty was met with in the operation, and the patient was fed for twenty-six days, but pulmonary trouble led to a fatal issue. At the autopsy the disease was found to be epithelioma of the œsophagus, and perforation had taken place into the bronchi. It was also seen that the stomach was perfectly adherent to the abdominal wall. M. Lannelongue therefore gives in his adherence to the view that gastrostomy is a rational operation, believing that it is indicated whenever life is threatened from aphagia. To insure success, Verneuil's method should be rigidly followed, one of the principal points he lays down being that the stomach is to be firmly fixed to the abdominal wall by the careful insertion of numerous sutures before the artificial opening is made.—*Journal de Médecine*, May, 1877.

American Medical Association.

SECTION ON SURGERY AND ANATOMY.

DR. FRANK H. HAMILTON, of New York, Chairman.
DR. JOHN E. OWENS, of Chicago, Secretary.

FIRST DAY.—TUESDAY, JUNE 5TH.

THE Section was called to order at 3 P.M., and the first paper was read by DR. J. T. HODGEN, of Missouri, on

THE VALUE OF EXTENSION IN THE TREATMENT OF FRACTURE OF THE FEMUR.

DR. HODGEN described the usual treatment for such a fracture, and pointed out the faults of plaster cases and pulley apparatuses. Lateral supports he pronounced to be valuable only to prevent angling. Continuous extension, by means of force not varying in power, was essential. It was not to be found in elastic extension, the name of which showed that the power could not be constant. Friction vitiated the pulley apparatus; oblique suspension he deemed to be the only suitable method. The exact pressure required could be obtained by varying the obliquity of the suspending cord till the patient was out of pain. In twenty-four hours a child five years old would learn the amount of extension under which comfort could be obtained, and would maintain it. Fortunately, the amount of extension needed was what the comfort of the patient required. The patient would naturally adapt his position to the lessening contraction of the muscles.

The paper set forth the following propositions:

1. That in the treatment of fracture of the femur continuous and equable extension is indispensable to the best results is conclusively shown in the impossibility of maintaining with equal certainty accurate coaptation by any other means.

2. That continuous and equable extension cannot be secured by lateral support.

3. Continuous and equable extension can only be secured by suspending the limb, because in no other way can we avoid friction between the extending force and the part to be extended.

4. Suspension furnishes the best means for allowing motion to other parts of the body, while perfect apposition of the fragments of fractured thigh is constantly maintained, because there is no resistance offered to the movement of the limb in any direction in which the body may be moved except in the direction from the point of suspension, and in every other direction the limb follows the movements of the body without the least friction.

The position taken by Dr. Hodgen provoked a spirited discussion, which was participated in by Drs. Keller, of Arkansas; W. H. Hingston, of Canada; Truesdell, of Rhode Island; Gasley, of Arkansas; Peck, of Iowa; Hevans, of Missouri; Pearce, of Illinois; Egbert, and others.

SHORTENING IN FRACTURES.

DR. HINGSTON, of Canada, offered the following, which was adopted:

Resolved, That in fractures of the thigh, notwithstanding the judicious employment of every mechanical contrivance hitherto devised, shortening of the limb is of frequent occurrence.

DR. PECK, of Iowa, offered the following resolution:

"*Resolved*, That it is the opinion of this Section that shortening in cases of fracture of long bones is the rule in practice, regardless of any of the plans of treatment now in use."

A spirited discussion again followed the introduction of the above resolution, some strongly advocating its adoption, while others were equally strong in its opposition.

DR. HEVANS, of Missouri, did not think the passage of such a resolution advisable. He objected to any association voting upon a scientific subject.

DR. GUNN, of Chicago, thought it ought to be carried. He did not look upon the question as one of science, but one of fact. Shortening of a fracture was the rule, and full length the exception. This was the purport of the resolution, and he hoped it would be adopted.

The resolution was adopted, after which the Section adjourned to meet at 3 P.M., June 6, 1877.

SECOND DAY.—WEDNESDAY, JUNE 6TH.

The Section was called to order at 3 P.M. by the Chairman. A letter was read from DR. ROBERT BATTEY, of Georgia, announcing that he had been unable to complete his essay on "The Permeability of the Entire Alimentary Canal by Enema, and Some of its Surgical Applications," and asking that it be postponed to the next meeting. Permission was granted.

STRICTURE OF THE URETHRA FROM MASTURBATION, AND ITS PATHOLOGICAL SIGNIFICANCE.

In the absence of DR. S. W. GROSS, of Philadelphia, the author of the paper, it was read by PROF. S. D. GROSS. It contained the histories of a number of cases which had fallen under the author's observation, showing the ultimate result of the within-mentioned cause. In this connection PROF. GROSS exhibited two new instruments to be used in the treatment of the stricture.

The paper was referred to the Committee on Publication.

MEDIO-BILATERAL LITHOTOMY.

DR. W. T. BRIGGS, of Tennessee, read a paper upon the above subject, which contained the following conclusions:

1. That the medio-bilateral is the simplest and safest, and, therefore, the best method of lithotomy. 2. That it is the method best adapted to a large majority of cases. 3. That it passes by the shortest and most direct route to the bladder. 4. That it lessens the chances of the surgeon's knife slipping out of the groove of the staff and passing into the space between the rectum and the bladder. 5. That by it tissues of the least importance are divided. 6. That if the median line be closely followed, and only a limited section of the deep-seated parts be made, less blood is lost than by any other method.

The paper was discussed by DRS. HODGEN, LANGFORD, and GOULEY.

DR. J. W. S. GOULEY, of New York, took the ground that there was no best operation; that each case must be studied by itself, and that each case indicated by itself what operation was the best to be adopted.

With regard to perineal lithotrity,

DR. BRIGGS made an incision, and subsequently dilated the opening with the fingers.

DR. GOULEY preferred to dilate by means of Dolbeau's dilator, to the extent recommended by Dolbeau, and then break up the stone. The Doctor also referred to the fact that the statistics proved the operation of

lithotrity to be much more successful than the operation of lithotomy; the rate of mortality in the first being only one in sixteen, while in the latter it reached one in eight.

Dr. Lewis A. Sayre, of New York, then read a paper on

THE TREATMENT OF FRACTURED RIBS BY EXTENSION AND EXPANSION OF THE THORAX, AND RETENTION BY PLASTER-OF-PARIS BANDAGE.

With Dr. Sayre's valuable suggestions regarding the use of the plaster jacket in the treatment of diseases of the spine the readers of The Record have already been made familiar; another jacket for treatment of fracture of the ribs is to be applied in accordance with the same principles.

CONSERVATIVE SURGERY.

Dr. Quimby, of New Jersey, read a paper upon the above subject. A detailed account was given of a case in which one inch and a half of the tibia and fibula were removed, and a good limb given to the patient.

The paper gave rise to discussion, which was participated in by Drs. Hodgen, of Missouri, Truesdell, of Illinois, Blake, of Indiana, Link, Hughes, Myers, and others.

Dr. Link, of Indianapolis, maintained that bone could be reproduced independent of the periosteum.

Dr. Hodgen, of Missouri, believed that inasmuch as the tibia and the tissues between it and the fibula were destroyed, the indication was for amputation, because of the danger of mortification, notwithstanding Dr. Quimby had made an excision, and saved the limb.

The papers read in the Section were all referred to the Committee on Publication.

The Section adjourned to meet at 3 P.M., June 7, 1877.

THIRD DAY.—THURSDAY, JUNE 7TH.

The Section was called to order at 3 P.M. by the Chairman.

SUSPENSION AS A MEANS OF TREATMENT IN SPINAL DISTORTIONS.

Dr. Benj. Lee, of Philadelphia, submitted a report upon the above subject, and in his absence it was partially read by Dr. Woodbury, who exhibited an appliance, designed by Dr. Lee, called a "Spinal Swing for Cases of Curvature."

Dr. L. A. Sayre, of New York, remarked that he regarded the apparatus as one of the most valuable which had been devised for the treatment of that class of cases.

Dr. S. D. Gross, of Philadelphia, then read a paper

ON THE IMMEDIATE OR PROXIMATE CAUSE OF PAIN.

Dr. Gross discussed his subject in connection with the following propositions:

First. That the nervous fluid, as it is called, is precisely similar to, if not positively identical with, the electric or galvanic fluid, modified of course by the play of the vital actions which everywhere exists in the organs and tissues through which the nervous fluid circulates. *Second.* That the fluid under consideration is generated by the brain, spinal cord, and nervous ganglia, and that the nerves are simply passive cords, ropes, or, so to speak, wires, for the transmission of the nervous fluid. *Third.* That what is called pain is due immediately and directly to obstruction to the transmission of the nervous current, thereby causing an accumulation of nervous fluid at the seat of the obstruction. *Fourth.* That pain can take place only in connection with a sound state of the brain and spinal cord, or, in other words, that when these organs are seriously affected there can be no perception of pain or suffering whatever. *Fifth.* That pain is modified or influenced by structure, and by the nature of the exciting cause.

The paper was referred to the Committee on Publication.

Dr. Marcy, of Cambridge, Mass., read a paper on

PLASTIC SPLINTS,

and exhibited a mill to be used in the preparation of the plaster bandages.

Referred to the Committee on Publication.

Dr. Sayre, of New York, presented a patient illustrating the lack of co-ordination and partial paralysis as the result of genital irritation. The patient was a girl twelve years of age.

RECENT ADVANCES IN OTOLOGY.

Dr. S. D. Jones, of Chicago, submitted a paper on the above subject, an abstract of which was read by Dr. Andrews.

Dr. Jones discussed the practical value arising from the anatomical divisions of the ear, and gave a description of instruments designed for the diagnosis and treatment of ear diseases. The most frequent seat of disease was the middle ear, in consequence of its immediate connection with the throat. Attention was drawn to the propriety of puncturing the drum under certain circumstances. The author believed that there were but few cases of catarrhal deafness which might not be relieved. It was difficult to conceive of such a thing as hereditary deafness. The Doctor then passed to the consideration of the management of deaf mutes, and alluded to the prospect of alleviating their condition by the sign-language, and, still better, by lip-reading. The paper was referred to the Committee on Publication.

OPEN-AIR TREATMENT OF WOUNDS

was the subject of a paper by Dr. Link, of Indianapolis. The author reported a very flattering result from this method of treatment. Referred to the Committee on Publication.

Dr. Lewis A. Sayre, of New York, rose to a question of privilege, and entered his protest against the resolution adopted by the Section on Tuesday, to the effect that shortening followed fracture, in spite of any methods of treatment now in use. It was a confession that the profession couldn't properly treat a fracture, and he protested against such a declaration.

Dr. H. I. Bowdich, of Boston, submitted a paper on

THE RELATIVE VALUE OF INCISIONS AND ASPIRATION IN THE TREATMENT OF EMPYEMA.

Referred to the Committee on Publication.

Dr. Forsyth described his *method of treating fractures*, and illustrated in the person of a young male patient.

VARICOSE ULCERS.

Dr. Martin, of Massachusetts, spoke upon the above subject, and exhibited an india-rubber bandage which, in his hands, had worked a permanent cure in such cases, without any other adjuncts in the way of treatment. The Section then adjourned.

SECTION ON MEDICAL JURISPRUDENCE, CHEMISTRY, AND PSYCHOLOGY.

Dr. Eugene Grissom, of North Carolina, Chairman.
Dr. E. A. Hildreth, of West Virginia, Secretary.

First Day.—Tuesday, June 5th.

RELATIONS OF SPIRITUALISM TO MEDICAL JURISPRUDENCE.

Dr John P. Gray, of New York, read a paper upon the above subject, which consisted largely of a critical examination of the Ward will case. Dr. Gray arrived at the following conclusions:

1. Spiritualism must not be taken as evidence of insanity. 2. A belief in communications from the unseen world from supernatural messengers is not an insane delusion. 3. The belief that mediums can communicate with the dead is not an insane delusion, for no evidence has been as yet presented of the truth of such communications having been made. They are mere assertions of the so-called mediums. 4. The implication of fraud must stand against all such persons or communications, as the dead party cannot be reached except through the so-called medium, and therefore the living party to whom the communication is made has no power of communicating with the dead. The whole is received simply through the medium. 5. Such communications cannot be received in courts of law, as they are excluded by the rule of rejecting conversations not held in the presence of both parties. 6. If Spiritualism is espoused as the result of the disease of the brain, being before repugnant to the belief and mental operations of the individual, then it is an insane delusion. Spiritualism must be received simply, under such ruling of the court, as undue influence. When it is a fraudulent influence, or conspiracy in the case of writs or contracts, then the writs and contracts made under such influence must be void. 7. The most serious questions would arise where a person should attempt to commit homicide under the direction of the so-called spirits. The presence of a medium in such a case would suggest fraud and conspiracy. If the individual was a Spiritualist through life and before the time, no insane delusion can be claimed unless it can be found in a brain disease. He would have to stand in that case upon the same platform as ordinary criminals. 8. Spiritualism can only be considered as an occasional delusion, and not as a cause or form of true aberration. It stands on the same footing as witchcraft, vampirism, etc. 9. The medico-legal bearing must be determined by the facts in such a case, whether it is an insane delusion or simply entertained as a speculative belief with reference to the unseen world in the possible condition of men after death. Medical science can take no cognizance of it as a speculation more than it can of any other.

The paper was referred to the Committee on Publication.

Dr. Edward Seguin, of New York, read a paper on

INTERVENTION OF PHYSICIANS IN EDUCATION.

This paper maintained that new progress in education could not be expected from any great discovery in the methods of teaching, but must come from an active intervention of the physicians in the training of the children, which would act in two ways: First, by transferring as much as possible the teaching in the open air, one means of doing which would be the creation of garden-schools, as proposed by Dr. E. Seguin. The execution of this plan would relieve the schools from the contagious ferments generated by crowding, and would considerably diminish the chances of sickness and of mortality among children. At the same time the pupils would learn from Nature what they see imperfectly represented in books, and gain by this immediate contact a love of Nature and naturalness which would react on their future avocations. For these garden-schools would contain, not only classes of botany, natural history, etc., but classes of drawing, carving, and modelling from Nature, whence would issue generations of true artists and superior artisans.

But the second and most important part of the physician in education ought to be that of a keeper of the balance of the vital forces of the children. Each child must have his study-book where the account of his acquisition and expense of vitality should be kept. Physicians alone could register the idiosyncrasies of children, measure the difference of build and of capacity of both sides of the body and of all the double organizations, and recommend accordingly certain forms of active or passive exercises, etc. The accommodation of the ear and eye must be tested in order that each child occupy at school precisely the place, and use the printed types corresponding to his power of vision and audition. But, above all, the physician in charge of a school should register the movements of the great vital functions—the pulse, the respiration, and the temperature before and after various studies—in order to establish in figures the balance of what a child could spend in studying or could not, under the penalty of death from that too frequent disease, the scholar-meningitis.

The paper was referred to the Committe on Publication.

The Section then adjourned to meet at 3 P.M., June 6, 1877.

Second Day.—Wednesday, June 6th.

The Section was called to order at 3 P.M. by the Chairman.

DO FACTS JUSTIFY THE RECOGNITION OF MORAL INSANITY AS A DISTINCT FORM OF MENTAL DISEASE?

Dr. R. J. Patterson, of Illinois, read a paper upon the above subject, in which he arrived at conclusions adverse to such recognition. His paper contained statistics from a large number of insane asylums running back over several years, and showing a very marked diminution of cases of so-called "moral insanity." This proved either that the disease was becoming less frequent, or that the doctors were losing their belief in the existence of such disease and attributed the cases to other diseases. Dr. Patterson objected to the recognition of moral insanity as a distinct form of mental disease, because there were no cases in which it was shown that a person suffered from "moral insanity," while the intellect was perfectly rational. No person would suffer by the denial of this recognition. The term, "moral insanity," not only did no good, but it did positive harm by enabling unscrupulous lawyers to set up a specious plea in behalf of their clients, especially in cases of homicide, in which there was no question as to the soundness of the intellect. The cases of Sickles, McFarland, and many others were cited here. And finally, very few of the highest authorities, medical or legal, recognized such a disease as moral insanity, and the plea of that disease was looked on with suspicion by experts.

Dr. John P. Gray, of New York, remarked that the institution of which he had charge had been cited by Dr. Patterson as refusing to recognize moral insanity.

That was true so far as he was concerned, but his predecessor, Dr. Brigham, believed in it, and according to the asylum's records there had been two thousand cases of moral insanity in that asylum alone. Dr. Gray had examined ten thousand cases of insanity without finding one that he regarded as a case of moral insanity. Dr. Brigham made three or four classes of moral insanity. One class was the impulsive, that characterized by a single manifestation, such as an impulse to commit homicide, with no other deviation from health. Dr. Gray didn't believe such a case ever existed, but Dr. Brigham did. Dr. Gray would as soon think of impulsive diarrhœa as of impulsive insanity. The idea of a disease that came in a moment and went in a moment conflicted with all his ideas of physiology and psychology. One of the asylums Dr. Patterson cited, that at Longwood, reported in one year a phenomenal amount of "moral insanity." Probably "rum" would express all of it.

Referring to the subject of heredity, Dr. Gray said that persons who suffered from moral taint, transmitted by parents, might be held to be morally defective, but it was unjust to them and the profession to regard them as diseased.

Dr. Thompson, of Mississippi, remarked that moral insanity was believed in more formerly than it is now, and Dr. Ray, the chief believer in moral insanity, had modified his statements in late editions of his own book.

Dr. Battey, of Georgia, said that in the asylums under his charge, where there were twelve hundred patients, there had been no case regarded as moral insanity in twenty-one years.

Dr. Knight remarked that if the term "moral insanity" implied the perfect soundness of all the faculties except the moral faculties, there was no such thing.

In reformatories there were, he said, perfectly healthy boys who would rather do wrong than do right. Punishment they sought to evade, but if it is applied it does no good. They sleep well, and eat well, and their minds seem bright enough. It was doubtful if these persons were morally responsible.

Dr. Edward Seguin, of New York, believed in moral insanity. In idiot asylums children were received who were worse than idiots. They had an inevitable habit, a necessary impulse, to sin. They had no symptoms of idiocy. They were healthy in body, and bright in mind. He told of a boy who had on twenty occasions shut himself up in a room and set fire to the furniture. He knew that he was doing wrong, but he had a necessary impulse to do it. That boy had been cured, and was a perfectly good boy.

The origin of moral insanity among children was a want, or better, a *besoin*. That boy had a *besoin* to see bright things as some people have *besoin* to speak constantly. His insanity was a sort of sensory insanity.

Dr. Buck, of Canada, also believed in moral insanity. Two patients in his asylum were conspicuous examples of it. He had failed to detect in either any intellectual delusion, but their moral natures were so perverted that they couldn't live in society. One of these cases was a woman, who was clever, neat, intelligent, and in perfect health, but she was subject to violent attacks of passion, and had excessively erratic tendencies. The other was a man. His mind was sound enough, so that he had accumulated a fortune, and was perfectly healthy; but if at large would maltreat his family, and commit other acts, making his existence in society impossible. Dr. Buck believed there were many other cases in his asylum where the initial departure from health was in the emotional nature. A very marked departure of the emotional involved the intellectual nature. He believed that a moderate moral aberration constituted criminality, while excessive aberration constituted moral insanity. The intellectual nature affected the emotional nature but slowly, while the emotional nature had immediate and tyrannical power over the intellectual nature.

The paper was referred to the Committee on Publication.

MEDICAL TESTIMONY, WITH SPECIAL REFERENCE TO CASES OF INSANITY.

Dr. G. R Buckham, of Michigan, read a paper upon the above subject, in which he set forth, in the first place, that physicians were not by education experts in such cases. Before graduation they were not required to study any particular branches in order to make them more "expert" than any other well-educated gentleman. Regarding cases of emotional insanity the Doctor did not believe that such a state of mind had ever been proved, and his natural inference was that there never was such a thing. A few changes were suggested by the writer in the medical college courses to remove the evils of which he had spoken.

Dr. Yeamans, of Michigan, opened the discussion, which was continued by Dr. Bartlett, of Minnesota.

The paper was referred to the Committee on Publication, and the Section adjourned to meet at 3 P.M., June 7, 1877.

Third Day.—Thursday, June 7th.

The Section was called to order at 3 P.M., by the the Chairman, Dr. Eugene Grissom.

Dr. Buckham, of Michigan, presented a resolution, requesting the appointment of a committee to take into consideration the subject of medical testimony, and to report at the next annual meeting. The resolution was adopted, and the committee appointed consisted of Dr. J. P. Gray, Dr. E. A. Hildreth, and Dr. Knight. The following were appointed a committee to revise the papers read before the Section, and to transmit them to the Committee on Publication: Dr. D. F. Boughton, Dr. C. K. Bartlett, and Dr. D. R. Brower. The Section then adjourned.

SECTION ON STATE MEDICINE AND HYGIENE.

Dr. E. M. Hunt, of New Jersey, Chairman.
Dr. D. R. Wallace, of Texas, Secretary.

First Day.—Tuesday, June 5th.

The Section was called to order at 3 P.M. by the Chairman, who made a brief statement regarding the work it was expected to perform.

In the absence of the Secretary, Dr. Williams, of Indiana, was elected Secretary *pro tem.*

Letters were read from Dr. Vandemann, of Tennessee; Dr. Catlin, of Connecticut; Dr. Smithecum, of Kansas, and from physicians residing in Colorado and New Jersey, in relation to the sanitary laws of those States.

THE ETIOLOGY OF ENTERIC FEVER.

Dr. J. L. Cabell read an elaborate paper upon the above subject, which consisted largely of answers from fifty-eight correspondents regarding the development of typhoid fever. Most of these letters attributed the origin of typhoid fever to filth, as is generally the case, but Dr. Cabell took up a number of cases where there was no end of filth, but typhoid fever was unknown. He believed that the laws affecting germ life were far from fully understood, an

that the facts did not warrant the *de novo* doctrine of Bastian's theory of heterogenesis. Speaking of the tenacity of germ life, he said Indian corn, a semi-tropical seed, had been exposed for years in the Arctic regions to a temperature seldom less than fifty degrees below zero, and yet it maintained its vitality. The replies he received indicated that typhoid fever was developed by excremental filth, by the use of milk from cans washed in tainted water, and by vegetable decomposition. Many correspondents cited much evidence to support the theory that decaying wood was far more likely to develop typhoid than was any other vegetable decomposition. A soil saturated with organic impurities was fruitful in producing typhoid. But Dr. Cabell said that typhoid was to be found where none of these causes were at work, and he regretted that the belief in excremental poisoning as the great source of the fever had caused physicians to overlook other hardly less important, but almost unknown causes. A large number of the replies cited many facts to show that there was an antagonism between typhoid and malarial fevers, and that typhoid is unknown where malarial fever is prevalent.

The paper was referred and the Section adjourned to meet at 3 P.M., June 6, 1877.

SECOND DAY.—WEDNESDAY, JUNE 6TH.

The Section was called to order at 3 P.M. by the Chairman.

The first paper was by DR. J. R. BLACK, of Ohio, on

THE LAWS OF HEREDITY, WITH SPECIAL REFERENCE TO THE TRANSMISSION OF MORBID TENDENCIES, ABNORMAL FORMS, AND THE EFFECTS OF INTERMARRIAGES,

of which the following is a brief abstract:

The improvement of domestic animals had long been deeply considered in all communities, and some, though weak, efforts had been made to improve the physical and mental condition of mankind. There was little wonder that the king of animals should be in his present degraded condition, for his physiological welfare had been practically neglected. Either man was exhausted by excessive work, or dwarfed by almost entire inaction. Even when some portions of the system were properly looked after and developed to a high standard, other portions were degraded by neglect or inaction, which often resulted in the deterioration of the whole system. Efforts were indeed being made to improve this state of affairs. Children were fed with plainer food and made to take more exercise. The evil of hereditary taints and the evil of intermarriage were not acknowledged, or at least not heeded. In Connecticut and Rhode Island the evil of intermarriage among relations was so great that the people were gradually dying out, and the birth rate among this class was growing less year after year. The result was, and the same course of action would only make it more so, that now nearly one-half of the population of such communities was spent in looking after the other half. In such communities the cases of inherited diseases of many kinds were fearfully numerous, and the cases where persons were entirely free from inherited diseases were very few; but few of such could be found who were entirely free of diseases inherited from parents. The speaker then referred to the statistics of hereditary diseases, and the various types of them. In mentioning the number of those afflicted with hereditary diseases, he stated that among ninety-three physicians and their wives, of whom reports had been presented, only fifteen males and eighteen females were reported as entirely free from an inherited predisposition to disease. A careful study had shown that there was no differential law of descent in reference to the sexes of those who were suffering from inherited disease, or of the tendency to the limitation of a defect to the sex in which it originally appeared.

The reader of the paper then spoke of the curious fact that among the Jews, where full statistics had been taken, there was greater longevity than among the Germans, among whom they lived; that the average life of the former was eleven years longer than that of the latter. In describing special cases he described numerous interesting cases, in one of which the child, when in bed, moved its big toe about in the same way in which its mother had done. Like things begot like things, and the capriciousness that sometimes appeared, or which was thought to appear, was only apparent; it was not real.

From the statistics which the Doctor had been able to collect, the conclusion was reached regarding

CONSANGUINEOUS MARRIAGES

that the chances of the issue having well-formed bodies and sound minds were so small that the strongest legal enactments against them were justified.

In conclusion, the lecturer declared that the more the primitive phases of civilization were considered the more apparent did the fact become that the somewhat violent hardships and privations to which life was then exposed fell with special force on the weak and helpless, and little, if at all on the vigorous, thus tending to the elimination of the one and the perpetuation of the other. It was apparent, further, that few persons possessed the strength of mind necessary to abstain from the perpetuation of the species, simply because they inherited a congenital disorder. Yet even this fact had an outcome not to be deplored. High intelligence, strong wills, and consistent behavior would survive, while feeble-minded ignorance and volitions unstable as water would carry the blood on to imperfection, disease, and extinction.

Discussion was participated in by Drs. Bell, of New York, Pratt and Lester, of Michigan, and others. Some of the speakers concurred in the opinion put forward by the essayist, while others thought his strictures relative to marriages between blood relatives were too severe.

The paper was referred to the Committee on Publication.

TUBERCULOSIS IN MILCH COWS AND THE CONTAGIOUSNESS OF TUBERCULOSIS BY THE DIGESTIVE ORGANS.

DR. A. N. BELL, of Brooklyn, read an elaborate paper upon the above subject, in which he spoke first of its nature, and then of the contagiousness of tuberculosis by the digestive organs. In considering the latter part of the subject he spoke at length of the danger of imbibing tubercular consumption through milch cows, by the use of milk from the cows infected with the disease. The fact that tuberculosis was transmissible was an undoubted one.

The aim of Dr. Bell's paper was to point out the unerring certainty of death to animals fed upon animal tissues infected with tubercular deposits. A large number of experiments upon horses, dogs, cats, and cows were cited from French, German, and Italian veterinary pathologists in the prosecution of their researches upon the contagiousness of tubercle through the medium of tubercular meats. The results of these experiments pointed to the certain transmissibility of tubercle. The deductions from the paper were, that the strictest police inspection of public meat markets should be instituted, and tubercular meats unhesitatingly thrown away, and heavy fines and

severe punishments should follow the sale of prohibited articles.

Dr. Bell's paper was referred to the Committee on Publication, with the provision that it might be taken up for discussion at a future meeting.

Dr. Comegys, of Cincinnati, read a brief paper on

STATE MEDICINE,

in which he contended for a more rigid enforcement of the laws in regard to the practice of medicine. Unqualified persons should not be allowed to practice, and the State should exercise a careful supervision over the issuance of diplomas. Another point was, that the medical profession was practically excluded from political life. The author concluded by offering the following resolutions, which he respectfully submitted for the consideration of the Committee on State Medicine:

"*Resolved*, That the medical profession, by reason of its paramount claims as guardian in so great a degree of the best interests of society, should seek to give authority to its claim by making the State the expression of it.

"*Resolved*, That it is the duty of the medical profession to labor for the establishment of a Medical Council of State in each State, which shall be empowered by law to make rules and regulations for the qualifications of medical practitioners and the regulation of whatever is connected with public hygiene.

"*Resolved*, That it is the duty of the profession to exert its influence to secure a fair representation of physicians in legislative bodies, because their participation in legislation is most important to the public weal.

"*Resolved*, That the devotion of physicians to medical politics will not hinder their culture or usefulness as practitioners, but rather will greatly strengthen them in their ability to promote good order and human happiness."

The Section adjourned without adopting the paper or the resolutions offered by Dr. Comegys.

THIRD DAY.—THURSDAY, JUNE 7TH.

The Section was called to order at 3 P.M. by the Chairman.

THE RESULTS OF LEGISLATION ON PUBLIC HEALTH

was the title of a paper read by

Dr. Elisha Harris, of New York. The substance of the paper was as follows: The public health laws have been enacted in most instances without the aid or preparatory conference of such medical and judicial experts as could alone give the most suitable directions and definitions to the statutes, and until certain State medical societies and capable experts in hygiene were consulted not one of the States succeeded in enacting the essential and practical provisions which were most necessary in this class of laws. In nearly every State the legislation on public health matters had been obtained too easily, and at the suggestion of persons who could not probably give the precise form and adaptation which both the construction of the statute and definition of methods or powers of their administration required. The general statute by which the powers of local authorities were defined, and by which the specific acts most needed for sanitary protection were enjoined, utterly failed to set in motion any methods or individuals competent to discharge the duties to which the more or less elaborate provisions of the enactments related. A statute had for the past fifteen years provided that the common school officers should require every pupil who attended school to be vaccinated or exhibit proofs of vaccination, and the same law required the school board to appoint vaccinating physicians and to pay as other employed persons in the school were paid. That law, of course, was a dead letter. That instance of useless sanitary law-making might suffice for illustrating the point just stated. It might be quoted as an illustration of short-sighted methods of attempting to attain great and good results. The object and even a part of the methods were worthy and right, but the sanitary duty itself was not set in motion by competent authority and skill, and, indeed, there was but the remotest probability that the most essential parts of the requisite sanitary work would be set in motion at all. It might be supposed that the laws for preventing or abating nuisances, draining, sewering, regulating the sanitary wants of lodging-houses, etc., would be well enough administered by common authorities of police or supervisory inspection, yet experience had abundantly proved that there was great need of a central intelligence and responsibility for the plans. There was a certain large township in the State of New York in which for forty years past the entire resident population had enjoyed an immunity from small-pox, such as had perhaps never been experienced in any American town. Yet no law of the State had been invoked to produce this result. One noble physician had maintained the Jennerian faith and practice, and had with equal ease secured the complete isolation of every case of small-pox which had appeared in that time, whether it were a passing traveller or a family or family servant. The authority of the laws had not been exercised, but the opinion and decisions of one had superseded the appeals to law. The public health laws in each State have been devised with the intention to provide for—

1. The organization of local boards of health. 2. The definition of the powers and duties assigned to them. 3. The definition of nuisances against health. 4. The specific provisions against contagious diseases. 5. The isolation or quarantining of the alleged communicable causes of contagious and pestilential diseases. 6. The regulation of certain sources of contamination of foods and beverages. 7. The removal and prevention of several sources of disease and danger in communities, for the reason that life and health should be protected.

The specific provisions against contagious diseases, namely isolation, destruction of property, and the establishment of a rigid quarantine, were too often abused. A conference between the medical, political, army and navy authorities would be a basis for action.

The paper was referred to the Committee on Publication.

Dr. Hunt called Dr. Comegys to the chair.

Dr. Sutton, of Indiana, presented a paper

ON TRICHINA SPIRALIS,

in which he advocated the passage of an act forbidding swine to run at large, or to be fed by the refuse from distilleries.

The paper was discussed by Drs. Harris, of New York, and Ohr, of Maryland.

There being no further business the Section adjourned.

The Summer Vacation.—With the present month all the medical societies in this city will adjourn until their regular times for meeting in September. In the mean time we hope to have the opportunity of finding room for the unusual amount of Society material which has been accumulating during the past few weeks.

Reports of Societies.

MASSACHUSETTS MEDICAL SOCIETY.

Stated Annual Meeting, at Boston, Mass., June 12th and 13th.

(Special Report for THE MEDICAL RECORD.)

FIRST DAY.—TUESDAY, JUNE 12TH.

THE Annual Meeting of the Massachusetts Medical Society was held in the hall of the Lowell Institute, Boston, on Tuesday and Wednesday, June 12th and 13th.

The meeting was called to order at noon, on Tuesday, by the President, DR. COGSWELL, and the reading of scientific papers was begun.

ERYSIPELAS AND PUERPERAL FEVER.

The first paper presented was on Erysipelas and Puerperal Fever, by JOHN M. CROCKER, M.D., of Provincetown. The reader reported his experience in attendance on the practice of midwifery during an epidemic of erysipelas. Although he attended several cases of midwifery during that period, no cases of puerperal fever occurred. The same was true during an epidemic of scarlet fever. The reader held that the poisons of erysipelas and puerperal fever were not identical, and that where epidemics of both diseases coexist there is some connecting link, some essential element, which it is our duty to endeavor to discover, though it may be very difficult to find it out.

DIPHTHERIA.

A paper on Diphtheria was next read by DR. J. H. GILMAN, of Lowell. The reader held to the opinion that the malady is, *ab initio*, a local disease, and that the system becomes infected from the absorption of putrescent material from the throat. Hence, in his opinion, the necessity of attendance on the case from the very outset, and of the endeavor to prevent the infection of the system by the application of remedies to the fauces.

ALCOHOL.

DR. W. W. EATON, of Danvers, read a paper on Alcohol: Its Use and Abuse in Disease. He believed that irreparable damage was often done by excessive stimulation in acute disease. Alcohol he regarded as a poison, to be as carefully prescribed as is any other poisonous remedy. He denied that it was in any sense a food, but acknowledged that it may at times be beneficial in critical states of acute disease, in anæmia and cardiac weakness.

Cell Emigration and its Relation to Inflammatory Processes was the subject of a paper by DR. G. M. GARLAND, of Boston. The reader gave a succinct account of the views of the leading German pathologists, as at present held by them.

INTRA-UTERINE INJECTIONS IN POST-PARTUM HEMORRHAGES.

S. W. TORREY, M.D., of Beverley, read a communication on Intra-uterine Injections in Post-partum Hemorrhage. He mentioned particularly the use of solutions of the persalts of iron, and the dangers attending thereupon. The hæmostatic property of the iron solutions he regarded as due to their constringing and not to their coagulating power. In the latter resides their source of danger. A material that will constringe and not coagulate will be likely to cause much less danger to the patient. The reader stated that Churchill's tincture of iodine was such a remedy, and that it had been successfully employed in New York and elsewhere for the purpose of controlling uterine hemorrhage.

BOLLES'S SPLINT FOR COLLES'S FRACTURE.

DR. W. P. BOLLES, of Dorchester, showed many forms of splints as used by different surgeons for the treatment of Colles's fracture, and also one of his own invention, carefully carved to fit the somewhat spiral curve of the forearm. He had obtained good results from the employment of his splint in several cases of the lesion under discussion, and he exhibited several patients with the splints applied.

SKIN GRAFTING.

W. SYMINGTON BROWN, M.D., of Stoneham, reported a Case of Skin Grafting, and showed the patient, a young woman, who, nearly five years ago, had her entire scalp torn off by her hair being caught in a revolving belt. Although the scalp was immediately replaced, it subsequently shrivelled up, and had to be cut away. During three years subsequent to May, 1873, 2,600 grafts of skin were made upon the patient's head, and now the entire scalp, with the exception of a small space over the left eye, has been healed. The eyelids have thus far remained unhealed, but it is hoped that a plastic operation may be performed upon them after the summer season has passed.

SECOND DAY.—WEDNESDAY, JUNE 13TH.

After the reading of this paper, the Society adjourned, and reassembled at 9 o'clock on Wednesday, when, after the reading of the records and the reports of committees, the reading of medical papers was resumed.

Written reports of cases of interest and of epidemics were received from several district societies, after hearing portions of which, a paper by H. W. DUDLEY, M.D., of Abington, was read, on Endometritis and its Treatment by Scarification. Dr. Dudley mentioned the advocacy of the method of treatment by Dr. E. D. Miller, a Fellow of the Society, in a paper published by Dr. Miller in 1867. When the treatment by scarification is indicated it should often be boldly done; sometimes two or three ounces of blood being withdrawn at one time.

MISCELLANEOUS SUBJECTS.

The value of medical opinions was the subject of a paper by DR. G. S. STEBBINS, of Springfield. The reader discussed many of the questions which interest the profession and the public, such as public hygiene, State boards of health, medical education, medico-legal questions, legislation in behalf of legitimate medicine, the proper remuneration to the physician for his attendance on his patients, etc., and closed with commendatory remarks of the recent efforts on the part of the Medical Department of Howard University to establish a higher grade of medical education.

DR. GEORGE JEWETT, of Fitchburg, read a paper on Surgical Injuries of the Head. He based his paper on the history and results of several cases of severe injuries of the head, which had occurred in his practice. He urgently enforced the necessity of early operation in cases of compression of the brain due to effusion of blood between the dura mater and the skull, to let out the effused blood before inflammatory symptoms set in, and convulsions, stupor, and hemiplegia arise.

A paper, on a Disease Peculiar to Young Men, was

read by Dr. G. W. Doane, of Hyannis. Such cases were often spoken of as due to self-abuse, but the reader knew of many who were the subjects of frequent and troublesome seminal emissions who were not guilty of any immoral practices. They were youths and young men from the best families, brought up to shun vice; but they were very likely to become depressed in mind, and many of them developed insanity later in life. The only cure he could recommend was marriage, and in many cases he had found it efficacious.

Delegates from other State Medical Societies were introduced by the President: Drs. Jenkins, Farnham, and Chase, from New York, Dr. Chamberlain, from Connecticut, and Dr. Eastman, from New Hampshire. Drs. Jenkins and Chamberlain made brief addresses.

ANNUAL DISCOURSE, ETC.

At twelve o'clock the Annual Discourse was delivered by Dr. John R. Bronson, of Attleboro, entitled, A Review of Medicine: Its Work and its Worth. After giving a sketch of the progress of medicine from antiquity to modern times, the orator stated that American colonial medicine had its birth at a period when European medicine was being agitated by rival pathologists. Laboring under great embarrassments, in a foreign land and an inhospitable climate, isolated from all the world, it is a wonder that it survived. A period of great depression ensued. But, immediately succeeding our independence, the old medical schools were reorganized and new ones established. During the last quarter of a century the rapid advancement of medicine is largely indebted to scientific specialists. The speaker forcibly urged the necessity of careful, persistent clinical study by the student of medicine, if he would attain a thorough medical education. Clinical medicine can only be advantageously studied in our larger cities. The practical application of this view would necessitate the closing of our country schools, and should do so at once. The speaker regretted that hygiene and preventive medicine had received so little attention from the profession in this country. But little thought has been given to what may be denominated medical politics. The medical profession should address itself to the suppression of quackery; to the bringing to justice criminal abortionists; to the suppression of the sale of quack medicines. It should use its influence to have proper regulations enforced regarding the attendance of children at school, and also regarding their course of study.

The orator further, in a somewhat guarded way, advocated the admission of females to the State Medical Society. He spoke in terms of approval of the efforts of the Society to rid itself of those who violated the spirit and letter of its by-laws, and after denouncing the various pathies and dogmas which legitimate medicine condemns, he assured his audience that our duties to the public having been performed, we have no fears for the medicine to come. The oration ended with a feeling tribute to the honored dead.

At one o'clock P.M., the Society passed to the Music Hall, where nearly six hundred Fellows engaged in the exercises of the Anniversary Dinner. Among the invited guests were Professors Austin Flint and J. C. Dalton, of New York, the former of whom in reply to the toast, "Our Honorary Members," expressed the satisfaction he felt in having during the past year been made an honorary member of the Society, of which at the beginning of his professional life he was an active Fellow.

At the Councillor's meeting on Tuesday evening the following were elected officers of the Society for the ensuing year:

President, Dr. William Cogswell, of Bradford; Vice-President, Dr. Gilman Kimball, of Lowell; Treasurer, Dr. F. W. Draper, of Boston; Corresponding Secretary, Dr. C. W. Swan, of Boston; Recording Secretary, Dr. F. W. Goss, of Roxbury; Librarian, Dr. D. H. Hayden, of Boston; Orator for the next Annual Meeting, Dr. Francis Minot, of Boston; Anniversary Chairman, Dr. Peter Pineo, of Hyannis.

The next Annual Meeting will be held in Boston, on the second Wednesday in June, 1878.

Progress of Medical Science.

On the Temporary Presence in the Human Blood of a Large Number of very Minute Red Globules.—Drs. Lépine and Germont, of Paris, report that in examining the blood of a patient suffering from carcinoma of the stomach they were surprised to find a large number of minute pale red globules, two to three thousandths of a millimetre in diameter, and in number about equal to that of the red globules. The little bodies had the contour of microcytes; that is, they were spherical or nearly so, and not bi-concave. Their color was less pronounced than that of the ordinary red globules, so that it required close scrutiny to distinguish them from the little white corpuscles. The blood was obtained in the usual way, that is, by puncture of the finger; it was then deposited upon a glass slide and covered, without the addition of any reagent. Two days later, when the examination was repeated, there was not a single one of the red spherules to be seen, nor could any afterwards be found. In a second case of carcinoma of the stomach, in a patient aged forty-six, an examination of the blood showed that there were vast numbers of the minute red globules which did not have a diameter of quite five thousandths of a millimetre, and equalled in number the red blood-corpuscles, while there was a goodly number of red corpuscles from two and four thousandths of a millimetre, at the extreme limit. Subsequently there were rouleaux of red globules, the smallest having a diameter of five thousandths of a millimetre. There was no notable change in the general symptoms between the two examinations to account for the change in the blood. In this connection reference is made to an article on the same subject by Litten, in the *Berl Klin. Woch.*, No. 1, 1877, where this temporary microcythemia was noticed in the blood of a man of twenty, who had œdema of the lungs, and also in three anæmic persons, a point which other authors have noticed. In two of these latter cases there was a remarkable change in form of the red globules. To account for such temporary apppearances two hypotheses are presented: one that they are the new formation of a great number of red globules, which are in the process of development into the large globules; or, that they result from fragmentation of the large red blood globules. The author adheres to the former theory, though as yet it lacks a sufficient amount of evidence in its favor.—*Gazette Méd. de Paris*, May 5th, 1877.

A Case of Traumatic Tetanus Treated by Whiskey.—Dr. Ezra Reed, of Terre Haute, Indiana contributes a new case of recovery from this terrible disease. Michael N., while at work in one of the machine-shops at St. Louis, was struck by a fragment of railroad iron, which tore the muscular tissue between thumb and forefinger. The laceration was slight, an

n six days the wound was healed. Fifteen days after he accident he had tetanic spasms and a stiffened aw. When seen by Dr. Read he was lying upon the ack with a ghastly expression of the countenance, is jaws were firmly fixed, and all the cervical mus-les were rigid and hard. The hands were folded across the breast and immovable. The pulse was 112, nd small; surface cool and moist: there was ab-ence of pain, but the spasms came on at intervals of rom 20 to 40 minutes. He was particularly sen-itive to noise and touch, which invariably produced spasms. These symptoms gradually increased for hree days, the pulse, only, remaining about the same. From this period the symptoms were remarkably uni-form for thirty days, when resolution set in. Dur-ng this time the sardonic grin, with retracted cheeks, nd forehead drawn into furrows, eyes distorted and ixed, and nose drawn up, were permanent character-stics of the case. The treatment consisted in the giving of three-grain doses of calomel daily for five lays, with twenty grains of quinine in five-grain doses, he object being rather to combat malarious influences han the disease in question. Hydrate of chloral was given for three days, and the frequency of the spasms was thereby lessened, but cumulative action being feared it was suspended for whiskey, of which he drank *three gallons* a week, or a little more than *three pints* daily. To the whiskey the doctor attributes the cure, and states that though really drunk from day to day, he was happy. During this time the food consisted of animal broths, beef and corn-meal gruel. This is the first case in Dr. Read's experience in which he has seen tetanus cured, and he thinks that so long as his good sister State Kentucky continues to manu-facture copper-distilled whiskey, he shall not pro-nounce tetanus a mortal disease.—*Chicago Medical Journal and Examiner*, May, 1877.

Mechanism of the Hip-Joint, with some Diag-nostic Points upon Dislocation and Fracture of the Neck of the Femur.—In a paper read before the Philadelphia *County Medical Society*, on February 28th, Dr. Allis stated that the hip-joint is the only true enarthrodial articulation in the body. The head of the bone is more than half received into its socket, and is retained therein by atmospheric pressure. Nei-ther the ligaments nor the muscles, according to him, contribute to this retention. It is maintained by the cartilaginous rim about the socket, which is called by some anatomists the sucker ligament. If the joints were held in place by the ligaments, any of the ordi-nary movements of the limb would be suddenly ar-rested, as soon as a ligament would become tense; if by the muscles, displacements would constantly take place in paralysis, anæsthesia, sleep, etc. The capsu-lar ligament being thin and loosely attached poste-riorly, offers no impediment to the movements of the bone; anteriorly it is thick and strong, and is strength-ened by accessory fibres, and by the tendons of the psoas, iliacus, and rectus muscles which are blended with it. Hence it is that man is enabled to stand erect, for without this special support the head of the bone would leap from the socket at every step. Stand-ng erect is a muscular act and hard work; in standing at rest, soldiers balance the weight of the body on one eg, the body being thrown a little forward and out-ward. In this position the strain is taken from the muscles and placed on two, or possibly three liga-ments—the teres, the ilio-femoral, and ilio-tibial, a trip of the fascia lata. The ligamentum teres only pproaches a tense condition when the limb is in a tate of adduction, and moreover, Henle has observed hat adduction is possible to a much greater degree, after the capsular ligament has been cut away. Hence, it is highly probable that this ligament does not con-tribute to the strength or security of the joint, but is simply the protector of the nutritive supply to the head of the femur.

The anterior portion of the capsular ligament forms a cup for the head of the bone and fixes it securely when in the resting posture. The structure, however, which contributes most largely to the *standing at rest* attitude, is the thick, strong portion of the fascia lata extending from the crest of the ilium to the outer side of the head of the tibia. It is attached to the linea aspera along its whole length. When we stand erect, this may be felt as a round cord about an inch from the outer side of the patella on each side. When the weight is thrown on one leg, this cord becomes more prominent on that side, and disappears on the other, and vice versa.

In making a diagnosis of injuries of the hip, it is important, when possible, to make the patient assume the upright position. In this position:

1. In fracture (complete) of the neck, there will be no marked deformity, no want of parallelism between the limbs, and both feet can be brought flatly upon the floor. In all cases of dislocation, the femur will have a fixed position; the knee can never be brought into a similar position with its fellow, and the foot can never be placed flatly upon the floor.

2. In fracture within or partly without the capsule, the limb, when in the erect position, is suspended by ligaments and muscles, and by the mere force of grav-ity hangs by the side of its fellow. In dislocation, the head of the bone lies in an abnormal, constrained position. The deformity will be greatest when the rent in the capsule and laceration of the muscles and tendons are least.

3. In fracture of the neck, the patient can rotate the limb almost as completely as in health, because the insertions of the rotator muscles are undisturbed, the capsule is intact, and no impediment is placed upon the free motion of the limb. In dislocations, on the contrary, the hip is always fixed.

4. In fracture of the neck, there is no longer the firm union between the limb and the trunk that is to be found in the sound limb. The thigh can be bent backward to a greater extent than its fellow. In cases of this injury, Dr. Cleeman has noticed a little wrinkle or fold in the tendo-patellæ due to shortening. When extension is perfect and the limb made equal to its fellow, this wrinkle is smoothed out. In fracture of the neck, the tension of the fascia lata and the ilio-tibial ligament is diminished.

In regard to measurements, it is necessary, in order to guard against error, to measure from several points, as the anterior superior spine of the ilium, the sym-phisis pubis, the point of the coccyx, etc. The de-gree of shortening in dislocations will depend largely on the condition of the ilio-femoral ligament. When this is untorn, the head of the bone must lie in close proximity to the socket, and the shortening will be slight. When there is doubt whether the head of the bone has returned to its socket, the limbs may be com-pared while at right angles to the trunk. If both are in their sockets, their length will be the same. This position may be utilized in the diagnosis of fracture from dorsal dislocation; in the former, the foot can be raised to the level of its fellow, but will shrink one-half to three-fourths of an inch when let go. In dislocation the shortening will be greater, will not disappear till the head of the bone is returned to the socket, and then will not reappear on removing the sup-port.—*Medical and Surgical Reporter*, April 7th, 1877.

THE MEDICAL RECORD:

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SHORTENING IN FRACTURES.

THE adoption of the resolution by the Surgical Section of the American Medical Association at its last meeting, regarding shortening in fractures, has a more important significance than would at first appear. The necessity for the deliberate declaration on the part of the surgeons present that shortening in fractures of long bones was a rule rather than exception seems to have been occasioned by some erroneous impressions to the contrary, which were created by a paper on the subject before the same body three years ago. It will be remembered that, at the time, there was a considerable discussion upon the subject, and that Dr. Sayre, the author of the paper, was called upon to defend his views against the majority of his surgical brethren. Contrary to his intention, the impression was nevertheless conveyed that not to secure union of the femur, for instance, without shortening, showed lack of skill. So far as the matter may be one of mere opinion, it would be safe enough to leave it, as each surgeon would be able to draw his own conclusions, based upon his individual study, observation, or experience. But such an opinion extends beyond the pale of strictly professional influences, and from a medico-legal point of view has an importance which can scarcely be overrated. It is obviously unfair to commit the profession to a point concerning which there has been and still is a great deal of doubt. With the view of placing the question in its proper light before the legal profession, and affording the surgeon who may be sued for malpractice a proper defence, the Section has placed its verdict on record. In any case of trial for malpractice in the treatment of fractures it would be safe to leave the question of culpability to a jury of experts; but when it must be settled by laymen influenced by the special pleading of the plaintiff's attorney, the result may be hazardous.

We are not prepared to believe that a fracture of the femur, even in an adult, may not unite without shortening, but we feel warranted in saying that when such a circumstance occurs it is of importance on account of its rarity. A great many cases have been reported proving the contrary, but such proofs have been far from absolute. The chances for discrepancies in measurement are very great, even with the best and most experienced surgeons. We have seen a case of fracture of the thigh measured in which there were variations in the measurements by experts from nothing to almost half an inch. The late Dr. Buck, who had given a great deal of attention to the subject, used to tell the story of a student of his, who, after having been informed by an eminent surgeon in one of the London hospitals that there was no shortening in a case of fracture of the femur, quietly and carefully measured the same, to find that there was a difference of three-quarters of an inch. At that time it was the custom merely to place the internal malleoli together and note the result. Fallacious as this system of measurement may have been, our present methods in reference to deciding the really fine differences are no better. Measurement, to be strictly accurate, must be mathematical. That the latter can never be attained in the measurement of any of the long bones is plain to every surgeon. Even if the shortening is to be expressed by the term apparent, there is a wide latitude for the expression of the degree.

It is perfectly proper that every surgeon who may be sued for a shortened limb should have the benefit of a doubt, but the latter can never be given him if the standard of excellence in treatment is assumed to be absolute equality in the length of corresponding limbs. While it is acknowledged that every surgeon should not rest content until this standard is reached, he nevertheless should not be held to account for the usual failures. From a medico-legal point of view then, it is quite important that a protest should be made against the impression created by the paper in question.

MEDICAL COLLEGE ASSOCIATION.

A LARGE number of representative medical colleges in this country have formed themselves into a confederation for the purpose of advancing the interests of medical education. From present appearances the members seem to be in earnest in their efforts at reforming many of the existing abuses. As so much depends upon the actions of the colleges themselves in improving medical education and advancing the standard of scholarship, this movement deserves encouragement. The regulations which have been adopted are excellent, and if obeyed by the members will have a powerful influence in bringing about the understanding which has heretofore been so necessary to promote the interests of all. The promise is given the profession that every effort will be made to educate candidates thoroughly, and that no disposition

to graduate improper persons will be tolerated. So may it be.

MEDICAL EDUCATION IN VERMONT.

We are pleased to see that the Vermont Medical Society has passed resolutions deprecating the lamentable deficiency in the preliminary education of candidates for diplomas, and that it requires of every student a good academic education, a certificate signed by a majority of the Board of Censors, or a diploma from some accredited school or college. A list of questions is to be published and used in the examination of students desiring to study medicine, and the answers must be approved by a majority of the Board before the applicant can be received. This is a step in the right direction, and it is to be hoped that the Society will have the power and the disposition to enforce the necessary obedience to the regulations. If we are to judge from the experience in this matter in our own State, we are not very sanguine of improvement. But we are willing to await the issue.

MORAL INSANITY.

The remarks on Moral Insanity, before the Section on Psychology, are quite interesting as proving the great difference of opinions, even among experts, concerning the nature and significance of this so-called disease. On the one hand, a gentleman of great experience states that he has never seen a case, while others believe to the contrary. In any event, it would seem that the whole subject requires to be studied anew without delay, else there is no telling how many criminals may be punished.

Correspondence.

A REPLY TO DR. KNAPP ON OPHTHALMOSCOPE-MAKING.

[To the Editor of The Medical Record.

SIR:—As Dr. Knapp has addressed some questions to me through the columns of your last issue, would you kindly allow me to answer them, although they are foreign to the point at issue?

The first question is: "If he (Dr. Loring) thinks small glasses are optically not so good, why did he adopt them?" I adopted the small glasses in 1869, four years previous to Dr. Knapp, because I thought that the smaller the space into which we could get a given number of glasses the better. I gave them up principally because, as stated in my paper, the expense at that time was so great for accurate optical work as practically to exclude their use; as a secondary reason, because I did not think them optically so good, nor do I at the present moment, as is shown by the fact that I never have used personally an instrument in which the glasses are less than six millimetres. When these small glasses came again into vogue I was induced to return to them principally through the representations of Wecker, in Paris, by whom, it was shown in my last paper, their use was first suggested to Dr. Knapp. The objection to them was, as I employed them first, that when they are of the same size, or within a trifle of it, as the hole in the mirror, a continuous canal is formed of mirror and disk, and a very troublesome reflex is formed from the unpolished edges of the glasses (that is, the ground glass border), and projects into the aperture of the mirror. This reflex was avoided in my instrument as made lately, by a very delicate flange around the circumference of the glass. I always supposed it was to render the instrument more perfect optically, and from the objections which I have raised from time to time against the smaller glasses, that Dr. Knapp has latterly increased the diameter of his glasses twenty per cent. My *return* to the use of these glasses was cited simply to show that I did not take them from Dr. Knapp. I cannot, moreover, understand what "problem" has been solved by Dr. Knapp in regard to the size of the mirror hole, the identical dimensions of which have been in common use for twenty years or more, not only by me, but by others.

The second question is: "If he (Dr. Loring) discarded the spring for centering the glasses in order to avoid reflections, why did he take it up again later?" Because, with a return to the smaller glasses, I became convinced it was of service in stopping the small glasses precisely opposite the hole in the diaphragm, the reflections having been already removed by the flange alluded to. The fact that Dr. Strawbridge, of Philadelphia, and Dr. Oldham, of London, had used this spring for centering the glasses long before Dr. Knapp had produced any instrument whatever, was cited simply to show that I did not take the idea from *him*. Even in his last paper Dr. Knapp entirely ignores these previous labors, though the citation where he can find them is given, and he talks seemingly with the desire of impressing those unacquainted with the facts of his originality in this matter. As a matter of fact, the model which I showed before the Academy of Medicine before Dr. Knapp's single-disk instrument appeared, had this spring attached to it.

Third question: "If he (Dr. Loring) *personally* prefers to have the posterior surface of the glasses exposed to get rid of a source of annoying reflections, why did he cover them?" So far as I *personally* am concerned, which is all I stated, I did not cover them, as I use to this day an instrument in which the posterior surface of the glass is exposed. As it was considered by some an advantage to have the posterior surface of the glass covered, I improved, I thought materially, the various covers then in existence.

Fourth question: "And why did Dr. Loring adopt all these arrangements only after he had found out that my single-disk ophthalmoscope was favorably received?" I adopted all these arrangements and improved on them for the same reason that Dr. Knapp adopted them from others, as shown in my last paper. I could see no reason, when so much had been adopted from me, why I in turn should not improve on what others had done, and this I intend to do, always endeavoring to acknowledge the true source from which I take my ideas. Moreover, I adopted them before, and not after, I knew of the favorable reception of what Dr. Knapp calls his instrument. Dr. Knapp's concluding sentence is as follows: "Truly so long as he (Dr. Loring) does not prove that his single-disk ophthalmoscope with twenty-four glasses was made before mine, I have nothing to take back of what I have written or may have said."

Does the fact that my last modification, with all its improvements (the acknowledged result of many

workers in many fields)—does the fact that this appeared after Dr. Knapp's prove that I took all the fundamental principles from *him?* On the contrary, it remains with Dr. Knapp to show that the printed evidence I have produced that he took the fundamental principles from my earlier instruments to form his, is not correct.

As the matter stands now, it is as follows: It is not denied by Dr. Knapp that he publicly accused me of taking from *him* all the important parts of my ophthalmoscope. In my paper, which was an answer to these statements, it was not only shown, by a long citation of facts, dates, and references, that I had not taken the essential elements of my instrument from him, but it was also shown from just what sources, including myself, he had taken what he was pleased to dwell upon as a *new* ophthalmoscope. Not one of these facts were controverted. Moreover, the fact remains that when it was proved in my paper that what he said to his class "was not in accordance with the facts," he did not deny the assertion or seek to substantiate the truth of his remarks by the citation of a single authenticated fact.

In contrast with what Dr. Knapp has declared to his students, may I be permitted to cite what the Professor of Ophthalmology of the University has stated to his class: "After all, the fact remains that all the modifications of the earlier impracticable instruments which have rendered the examinations with the upright image easy and expeditious, were suggested and taken from Dr. Loring's original instrument."

Dr. Knapp alludes to my paper as a personal attack upon himself. Of course, all discussions involving the use of names are more or less personal. Whether it is better to make personal attacks which cannot be substantiated by facts in the presence of those who are unacquainted with the subject, or to print them in a regular medical journal—the only fair and neutral arena for medical disputes—is a matter of taste. And as these are confessedly not open to discussion, I shall say no more in regard to it. I have re-read my remarks, and can find nothing which is offensive in them to Dr. Knapp, unless it be their truth, but fortunately whatever the truth may be in law it is never a libel in science.

Very truly yours,
EDWARD G. LORING, M.D.

PHOSPHORUS ASSIMILATION.

MR. ROBERT W. GARDNER—*Dear Sir:*—IN THE MEDICAL RECORD of May 19th, you answer the observations I made on 7th April to your paper on the above subject on January 27th.

You express yourself astonished that I should "dispute" what is "generally conceded by physicians," "that phosphorus must be given with the food or it will attack the mucous surface of the stomach."

I endeavor to base my observations on *facts*, and with such to support me I have many times "disputed" what is "generally conceded." Many years ago, in my early pupilage, I got the ill-will of many of our eminent physicians for asserting and *proving* that narcotine was not the narcotic principle of opium. I have "disputed" many other errors in therapeutics. I hope, for truth's sake, to "dispute" some of those which still exist. I have more reverence for truth than for "conceded opinions."

Free phosphorus, when administered in *medicinal* doses, is generally given in solution in some oleaginous substance, and when received into the stomach is absorbed with the oily globules, whether taken with food or without it, and the irritant action it produces on the stomach shows itself with all its toxic effects quite as soon one way as the other. With a dose of $\frac{1}{10}$ grain three times a day, the peculiar disagreeable eructations and irritability of the stomach is induced quite as quickly if given with several ounces of oil as with a drachm.

If you will look over the reported cases of poisoning by phosphorus, whether by administration of large doses, or the slower poisoning by smaller and frequently repeated doses, you will find that there are many instances where there are no lesions whatever upon the mucous lining of the stomach, but that hæmatomata are found upon the heart or pleura, or liver, or large intestines, the *serous* coat of the stomach, or elsewhere. In several cases I have reported, I have administered the ol. phosphor., undiluted and without food, and have found no lesion whatever upon the stomach, but the kidneys alone disintegrated from the effects of the poison. The same will be found in cases reported by Wegner and Köhler. These are facts, and worth more than all "conceded opinions" to the contrary. I am not much in the habit of giving free phosphorus *medicinally*, but I should have no fear that in the ordinary dose it would have any immediate local action upon the mucous lining of the stomach and if such "gastric irritability" and "undue irritan action" arose, it would be an after effect, localized there after the general system had become poisoned.

You say: "Dr. Percy denies that the irritant action of phosphorus is due to its oxidation." "Phosphorus exposed to the air takes fire. Why?" "Nobody disputes that it is because of its rapid absorption of oxygen." "Held in the hand, it burns the skin. Why?" "Undoubtedly by taking the oxygen from the cuticle thus disintegrating and destroying it. If it will burn the hand it will also burn the delicate mucous surface of the stomach, if in contact with it."

If you will turn to *Trans. Am. Med. Ass.*, 1872, pp. 647 and 648, you will find the report of several cases where enormously large poisonous doses of free phosphorus were given in oil, and the animals recovered without the slightest injury by administering oxygen, that is, by oxidizing the phosphorus and thus depriving it of its "irritant action." I believe I have thus proved that the only antidote we have to phosphorus is oxygen, that is, by its absorption of oxygen, "its oxidation," it becomes mild and *non*-irritant. Köhler in his work on this subject published in the latter part of the same year, fully sustains me; he gives many cases of cures from phosphorus poisoning by administering *oxygenated* oil of turpentine, but he states that the turpentine unoxygenated will not give relief. Have I not facts to support me when I "deny that the irritant action of phosphorus is due to its oxidation"? Again I "dispute" "conceded opinions."

If you will poison any worthless animal with phosphorus, and dissect it, your nose alone will soon give you proof that the phosphorus has not become "oxidized," but that it remains in the system in the same state that it was taken. If it were oxidized, it would not smell, and it would no longer be an irritant. There have been several cases reported where bodies have been quite luminous after poisoning by phosphorus.

"Phosphorus exposed to the air takes fire. Why?
"Held in the hand, it burns the skin. Why?"

I feel satisfied that you wrote this in a hurry, and without due consideration. Phosphorus is never given medicinally in its pure state, but in solution in oleaginous substances. If a saucer full of this phosphoretted oil is left exposed to the air for a year it

vill not take fire; and if the hands are dipped in it, t does not ignite or burn the skin. If this "hypothsis" of yours were true, we should, under all circumtances, when we give ol. phosph., have numerous ittle fires kindled in the stomach, and even if the oil vere mixed with food, it would only make the fires maller, but more numerous.

I grant that "dyspepsia and gastric irritability" follow its use, not on account of its oxidation and setting fire to the stomach, but owing to its absorption without becoming oxidized. It is an irritant! Arsenic also is an irritant of somewhat different character.

You say: "I deny that the phosphates derived from vegetable sources in any way differ from the (same) phosphates obtained elsewhere." I have withheld the word *same* from your sentence, because I have nowhere asserted that they are the *same*. I have said they are very different, and you differ with me for this assertion. We are all aware that man and animals throw off by their excretions large amounts of phosphates; these phosphates have been used and accomplished their purposes in the system, and have been changed in their formula from active nutrients to inert excrements; by the changes they have undergone, they are incapable of affording further nutrition, they are no longer needed in the system, are thrown off, and we use them upon our farms, and by their use vegetables grow freely, while without their use our lands soon become barren.

The animal has thrown off an inert and used-up phosphate, and it must again go through organization or *vitalizing* in plant life before it becomes adapted to nourish and support animals. The *phosphoids* in our system are derived from the foods we eat, and the richer and more "complex" these phosphoid elements, the more nutritious we find the vegetables.

You deny that "the phosphates derived from vegetable sources in any way differ from the phosphates obtained elsewhere," and yet you acknowledge that you have never made an analysis to test this assertion, or even read authorities to which you were referred. I have made many analyses for the peculiar phosphoid elements contained in plants, and I have found some of them to differ, and differ materially, from laboratory compounds of phosphorus. Some of the animal phosphoid compounds differ also from any laboratory compounds. If you will enter into such "realms of metaphysics" and examine "the physiological action" of plant life, you will no longer doubt that plants have the power to appropriate from the soil the effects and innutritious phosphates excreted by animals, and elaborate them into a higher organized phosphoid element which is suited to its own growth and reproduction, and the nourishment of animals. This is common-school literature. Read Bryant's *Forest Hymn*.

I was not aware that you had in the market a syrup of the hypophosphites, and therefore could not in any way refer to impurity in it, and I have no doubt, from your lucid chemical explanations regarding it, that it is strictly all it is represented, and yet you acknowledge that all that are made with the commercial salts are as impure as I represented them.

You say: "Although combinations are frequently required, this is one objection I make to Dr. Percy's *complex* formula."

I would refer you to Thudicum's most admirable work on the Chemical Analysis of the Brain. As in every other analysis of animal or vegetable organs, will there be seen that the nitrogen phosphoid elements are not simple; they do not consist of simple neutral hypophosphites of lime, or soda, but they are very complex in their character, and that complexity I have endeavored to maintain in the "Vitalized Hypophosphites." Were it within the province of this paper, I could give numerous recommendations of its inestimable benefit from physicians who have used it largely, that would silence all objections to "its complex formula."

The error of combinations in our remedies is in their incompatibility, not in their "complexity."

This puts me in remembrance of an observation made several times by my most worthy preceptor, Professor J. B. Beck: "The woman who invented turtle soup and plum pudding ought to be immortalized; some are foolish enough to think them a heterogeneous compound; the initiated know them to be a homogeneous whole."

Again I say I am happy to read your criticism. There are some things in which we do not agree, but I hope it makes us both better and wiser to discuss them.

I am, most respectfully,
SAMUEL R. PERCY, M.D.

47 WEST THIRTY-EIGHTH ST.

ONE-SIDED ACTION OF BELLADONNA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In addition to the two cases of one-sided action of belladonna reported on page 334, vol. 12. of THE MEDICAL RECORD, allow me to present another, which occurred in my own person.

Some six (6) weeks since, while suffering from an attack of tri-facial neuralgia—left side—I began taking, internally, of the alcoholic extract of belladonna, gr. $\frac{1}{4}$ thrice daily.

About noon of the second day I noticed some disturbance of the vision, but thought nothing of it, as such a result was to be expected; but some hours after I accidentally discovered that the disturbance seemed to be wholly confined to one eye, the right, and going to a looking-glass found the right pupil widely dilated, not responding in the least to alternate light and shade, while the left was in a perfectly normal condition and responded readily to light and shade.

I continued the remedy for about one week, the right pupil remaining fully dilated during the whole of this time, and for two or three days subsequent to its discontinuance, while the left pupil failed to—at any period of the time—show the characteristic effect of the drug.

J. NEWTON SMITH, M.D.

GOSHEN, INDIANA, June 5, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 10 to June 16, 1877.

SUMMERS, J. E., Surgeon and Medical Director. Granted leave of absence for one month. S. O. 76, Dept. of the Platte, June 9, 1877.

PAGE, CHAS., Surgeon. To perform the duties of Medical Director of the Department during the absence of Surgeon Summers. S. O. 76, C. S., Dept. of the Platte.

ALEXANDER, C. T., Surgeon. Assigned to temporary duty at these headquarters, and to accompany the Department Commander during existing field operations. S. O. 62, Dept. of the Columbia, May 29, 1877.

Vickery, R. S., Asst. Surgeon. Assigned to temporary duty at Fort Hamilton, N. Y. H. S. O. 131, Div. of the Atlantic, June 15, 1877.

Moffatt, P., Asst. Surgeon. Assigned to duty at Fort Mackinac, Mich. S. O. 131, C. S., Div. of the Atlantic.

Paulding, H. O., Asst. Surgeon. Relieved from field duty, and to resume his duties as post surgeon, Ft. Ellis, Montana Territory. S. O. 71, Dept. of Dakota, June 5, 1877.

Torney, G. H., Asst. Surgeon. To accompany battalion 16th Infantry from New Orleans, La., to Fort Leavenworth, Kansas, remain on duty with regiment, and await orders from A. G. O., relieving him from duty in the Dept. of the Gulf. S. O. 97, Dept. of the Gulf, June 7, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending June 16, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
June 9	0	3	75	3	62	29	4
" 16	0	3	99	2	52	40	2

Dr. J. W. Barstow, Medical Superintendent of Sandford Hall (lunatic asylum), Flushing, L. I., gave a reception on Saturday last to the members of the Medical and Surgical Society and several medical friends. After inspecting the grounds and the buildings, a bountiful repast was served, and altogether the affair was an enjoyable one.

Dr. Frank H. Hamilton, President of the Medico-Legal Society, signalized the last meeting of that body, June 13th, previous to its vacation, by a reception to Dr. Isaac Ray, of Philadelphia, the distinguished medical jurist, who read a paper in the earlier part of the evening on Testamentary Capacity.

Our Society Reports.—The necessity for finishing up the reports of the Sections of the American Medical Association has compelled us to crowd out other material.

Death from Blood-Transfusion—An inquest has been recently held at Liverpool on the body of a man named Walter Robert Williams, who died after having some of his blood transfused to another man, who was in a very weak state. The operation took place a few days ago, and the deceased went on well for a day or two afterwards. He then became ill, got gradually weaker, and died May 24, from erysipelas. The deceased was a man of full habit, and it was stated that he was occasionally given to drinking. The surgeon who performed the operation said that, before doing so, he made particular inquiries from the deceased as to his habits and state of health, and his answers were satisfactory. Witness thought him a remarkably fit subject. The general medical evidence was to the effect that the operation had been skilfully performed. Mr. Higginson said he had performed the operation successfully in fifteen cases. The jury returned a verdict of "Death by misadventure," but they were also of opinion that sufficient inquiry was not made by the medical men who made the operation as to the deceased's habits and physical condition, and that he was not sufficiently cautioned as to the risk he was running. Together with this report, we receive at the same time a little pamphlet by Dr. Roussel, advocating the more frequent practice of transfusion by the aid of his now well-known instrument, with a few introductory words of recommendation by one of the most thoughtful of surgeons, Sir James Paget, who adds the following words, on which the above accident furnishes a striking commentary: "As to any damage to be sustained by the person who gives the blood for transfusion, no fear of this can be felt by any one who, like myself, many years ago, bled healthy people in any number without harm."—*British Medical Journal.*

Death under Ether.—An inquest was held May 23d, in the case of a man aged 69, who was admitted into the London Hospital with strangulated hernia of three days' duration. It was evident that strangulation existed, although the hernia had been reduced, as he was constantly vomiting, and the abdomen was tense and tender. He was so much exhausted that it was a question how far he would bear any operation. Ether was administered by Clover's inhaler, first allowing air only to be admitted, then a small quantity of ether-vapor. He did not take it well, and struggled much. Air was then admitted freely; and, although respiration continued a short time, the pulse became weaker and finally stopped. Silvester's artificial respiration and other restorative measures were tried, but failed. Not more than two drachms of ether were used. On *post-mortem* examination, the heart was found flaccid, and the left ventricle uncontracted; the lungs were extremely emphysematous, and the bronchi filled with muco-purulent matter. These and other morbid changes, both chronic and acute, might be considered sufficient in themselves to account for death. The facts, therefore, would not warrant the conclusion that death was due to the administration of ether. Several coils of intestine were strangulated by two long bands of omentum twisted round them spirally and adherent to the sac, which had been inverted and pushed up into the peritoneal cavity. An additional explanation of the sudden collapse was afforded by the fact that the relation of the parts was so peculiar that traction on the scrotum, in attempting reduction, pulled down the sac, and tightened the bands around the mass of intestines to an extreme degree. The jury returned a verdict of death from accidental causes.—*Ibid.*

Medical Society of Rockland County, N. Y.—At the meeting held May 29, 1877, the following officers were elected for the ensuing year:

President—Dr. J. J. Stephens, of Tappan; Vice-President—Dr. I. C. Waring, of Clarkstown; Secretary—Dr William Govan, of Stony Point; Treasurer and Librarian—Dr. I. S. Wigton, of Spring Valley; Censors—Drs. I. O. Polhamus, E. H. Maynard, and I. C. Waring Delegate to American Medical Association for 187[illegible] —Dr. William Govan.

Iowa State Medical Society.—At Annual Meeting of this Society, held at Cedar Rapids, May 30th, and 31st, the following officers were elected for the ensuing year: President—H. Ristine, of Cedar Rapids; Vice Presidents—J. W. Gustine, Carroll City, and L. P Fitch, Charles City; Secretary—J. F. Kennedy, Des Moines; Assistant Secretary—G. O. Morgridge, Wes Liberty; Treasurer—G. R. Skinner, Cedar Rapids.

Hot Water a Remedy for Post-Partum Hemorrhage.—Dr. G. Jacobi, late graduate of Bellevue College, now assistant of Professor Schroeder, in Berlin, writes to his preceptor, Dr. Waterman, as follows: "I attended, last night, in the lying-in hospital, a case of profuse post-partum hemorrhage, which I was unable to control with the usual means, and had to send for Professor Schroeder, who immediately arrested the bleeding by an injection of hot water, 50° C."

University of Pennsylvania, Medical Department.—Prof. Theodore G. Wormley, of Columbus, Ohio, has been elected to the Chair of Chemistry, made vacant by the resignation of Dr. Rogers; and Dr. John Ashhurst, Jr., to the Chair of Clinical Surgery. The Chair of Physiology will be filled temporarily by Prof. James Tyson. Dr. John M. Keating has lately been elected to lecture on Diseases of Children, in the spring course.

New Journals.—Our exchange list has recently been enriched by two new journals: *La Province Médicale*, and the *Revue Médicale Roumaine*. The former, which is published at Bordeaux, is started with the design of supplying the profession in that city, and in its neighborhood, with more detailed and satisfactory accounts of what is being done in the great medical centres of the world than have been furnished by the two medical journals already published there. The *Revue Médicale Roumaine*, which is published at Bucharest, will take cognizance of all questions relating to the medical sciences. Its end is to keep the profession in other countries informed of the progress of medicine in Roumania, and also to bring to the notice of its compatriots the results of the scientific investigations and practical experience of foreign observers. The present number (March 19) contains the history of a fatal case of nervous hydrophobia. The patient, a child, was frightened, but not bitten, by a dog that was not rabid. The symptoms were in the main those of hydrophobia, but presented many deviations from the typical course.

We have also received the *St. Petersburger Medinische Wochenschrift*, which, though new to our exchange list, has been in existence for some time. In addition to the usual original articles, etc., the editors of the journal intend from henceforth to furnish for the benefit of foreign readers a weekly review of Russian medical literature, including both periodicals and separate publications. This review will be made as complete as possible. One of its editors is well known by his able editorship of the *Dorpater Medinischer Zeitschrift*.

Comparative Protection of Vaccination and Variola.—Dr. Wm. Badger, of Flushing, L. I., writes: "In the issue of your journal, May 19th, an article with the above caption. In confirmation of the fact there stated, allow me to mention briefly, that during our civil war I selected some twenty hospital patients for vaccination on the succeeding day. The next morning I found among them, from some unknown reason, an extra man, with arm bare for the operation, whose face was unusually disfigured from small-pox. Remarking that I was willing to accommodate him, although it was unnecessary, I vaccinated him with the others, and thought no more about it until the eighth day, when, on examining the men, I found that the most characteristic appearance was on the arm of this pock-marked man.

'A few years since, there was living in New York city, a lady, an intimate friend of my family, who had suffered from variola, or varioloid, *three* times, at intervals of several years.

"Other instances of the recurrence of variola are by no means as infrequent as generally supposed, and I should not think of employing a nurse who has had small-pox to care for a similar case without revaccination."

Death from Chloroform.—*The Medical Press and Circular*, of Dublin, in commenting upon the recent deaths from chloroform in London, says: "We often hear chloroform deaths spoken of as simple mischances, of which every hospital surgeon must bear his share, and of which a few more or less must be looked upon as a run of bad luck; some surgeons even go further, and talk of occasional chloroform deaths as a sort of penalty which the operator pays for permission to use a rapid and convenient anæsthetic. We speak not only for the profession but for the public, when we say that such a view of looking at the sacrifice of life by anæsthetics is worse than inhuman. It is criminal and it is unscientific, and so much so as to justify the stern interference of the law and the summary punishment of those guilty of culpable negligence. We advisedly repeat that the anæsthetist who gives, or the operator who permits to be given, an anæsthetic without the most anxious thought as to the fitness of the patient to receive it, the safety of the agent itself, and the suitability of the means of administration, is responsible in the highest legal and moral senses for the result. We solemnly protest against the 'ready method' of anæsthesia by a dash of chloroform on a towel, and without any close examination into the case or careful inquiry as to the safety of the administration, and we are strongly of opinion that the time has come to put in force all the coercion of which the profession is capable for the purpose of checking the daily sacrifice of life by careless dosing with chloroform."

Kentucky Infirmary for Women and Children.—At a meeting of the Board of Regents, Kentucky Infirmary for Women and Children, held May 15, 1877, the following persons were elected to serve for the ensuing year:

Medical Staff.—Dr. David Cummins, Deformities and General Surgery. Dr. Geo. W. Griffiths, Diseases Peculiar to Women and Children. Dr. Richard C. Brandeis, Diseases of the Eye, Ear, and Throat. Dr. Ely McClelland, Pelvic Surgery. Dr. Samuel Brandeis, Surgeon Accoucheur. Dr. James McEvoy, Clinical Assistant. *Dental Staff.*—B. Oscar Doyle, D.D.S.; W. T. Redman, D.D.S., M.D.; Ch. E. Dunn, D.D.S.; W. T. Goddard, D.D.S.; C. G. Edwards, D.D.S.

Lacto-Phosphate of Lime as a Tooth-Filling.—The treatment of exposed dental pulps and sensitive dentine is the subject of an interesting paper by Junius E. Cravens, D.D.S. The lacto-phosphate of lime is applied to the exposed pulp, which is carefully sealed and left undisturbed for several weeks. On removing the coverings a new bone is found, its surface continuous with that of the formerly soft dentine, and the sensibility being even below the normal degree. Oxy-chloride of zinc and other substances, however, may produce like results.

Salicin in Cancer of Stomach.—Dr. A. E. Hull, of Berlin, N. Y., writes: "I wish to call attention to the great relief obtained in a case of carcinoma of the stomach from the use of salicin. The pain and vomiting was very severe, and the only way in which an anodyne (morphine) could be retained, was to administer it in a state of effervescence, and then only for a short time, and under these circumstances the patient suffered greatly from the pain in the stomach and the annoyance of vomiting. At this stage I began giving small doses of salicin, perhaps half a

grain every three hours, and to my surprise there was marked relief from both the pain and vomiting from the first powder, which was given in a little water and was perfectly retained by the stomach. Patient continued to take the salicin as long as life lasted, about five weeks, and enjoyed a degree of ease and comfort that was not to be anticipated. I am not aware that salicin has ever before been given for relief in this disease, neither do I pretend to say just what the *modus operandi* of the remedy was that gave such relief in this case, but think it must be owing to the anæsthetic and antiseptic properties of the salicylic acid contained in the salicin.

"As this is the only case in which I have had a chance to use the salicin in carcinoma of the stomach, I hope other physicians who may have an opportunity will give it a fair trial and report their results.

"The dose of salicin was increased some during the five weeks the patient took it, but at no time did it exceed two grains."

The New York Academy of Sciences and Physiological Education.—The New York Academy of Sciences has taken hold of the question of physiological education in a way that promises to result in some practical good. The following conclusions commend themselves to the serious attention and cordial support of the medical profession:

The undersigned, a committee of the New York Academy of Sciences, appointed at the instance of Dr. Edward Seguin, to suggest methods by which the public parks of New York could be made most useful to the citizens, respectfully submit the following resolutions:

Resolved, I. That the public parks of New York, like those of every other great city, are of inestimable value to the physical and moral health of the citizens, and should be carefully guarded from every kind of encroachment and misuse.

Resolved, II. That the parks of New York should not only be made attractive places of resort, but should be so arranged and planted as to be schools of taste and means of scientific instruction. To accomplish these ends, they should not only be made beautiful to the eye, but so stocked with plants and animals as to give to those who visit them impressive views of the variety and system of nature. Hence they should contain, not merely masses of common plants, serving the purpose of so much vegetation in the landscape, but that vegetation must include as large a number as possible of plants of scientific and economic interest, and those so arranged and labelled as to educate the understanding as well as to please the eye.

Resolved, III. That since it is a well-established truth that certain kinds of vegetation exert a powerful purificating influence upon the atmosphere, efforts should be made to introduce these sanitary agents for the purpose of neutralizing the malaria which pervades so much of the city and environs of New York, and that, to accomplish this object, we should seek to acclimatize such febrifuge trees as the Eucalyptus, not now hardy here; or to introduce plants of this tree taken from some higher and colder station than those from which they have heretofore come.

Resolved, IV. That special arrangements should be made to facilitate the free use of our parks as garden-schools, by the children now too much confined in our public school buildings; and that some competent physiological and hygienic control should be established to guard against the evils which the weaker pupils constantly suffer from too great crowding and too long confinement in the school-room.

Resolved, V. That the members of the Academy of Sciences have heard with great pleasure of the inception of a movement for the establishment of a Botanical Garden in connection with the Central Park, believing that this would add much, both to the attractiveness and utility of this great place of resort.

Resolved, VI. That copies of the foregoing resolutions be transmitted to the Mayor of the city, the Park Commissioners, the Board of Health, the Board of Education, and the Trustees of the Botanical Garden, with the assurance that the members of the Academy of Sciences will gladly co-operate in any possible way for the accomplishment of the object suggested in these resolutions.

The Periodical International Medical Congress will hold its fifth session at Geneva, commencing Sunday, September 9th, and ending September 15th. The following papers are announced:

In the *Section of Medicine*: 1. Ulcers of the Stomach, Prof. Lebert. 2. Parasitic Affections of the Skin, Prof. Hardy, of Paris. 3. Etiology of Typhoid Fever, Prof. Bouchard, of Paris. 4. Treatment of Fever by Baths, Dr. De Cérenville, of Lausanne. 5. On the Tissues Implanted in the Organism, Prof. Zahn of Geneva. 6. Indications and Therapeutic Value of Tracheotomy in Croup, Prof. Revilliod. 7. A Universal Pharmacopœia, Prof. Gille, of Brussels. In the *Section of Surgery*, are: 1. Esmarch's Hemostatic Method, Prof. Esmarch, of Kiel. 2. Influence of Traumatism on Pregnancy and vice versa, Prof. Verneuil, of Paris. 3. Treatment of Ozœna, Dr. Rouge, of Lausanne. 4. Final Results in Resections of Joints, Dr. Ollier. 5. Galvano-Cautery, Prof. Julliard, of Geneva. 6. Apparatus for the Transport of the Wounded. 7. Fistulas of the Penis, Prof. Reverdin, of Geneva. In the *Section of Obstetrics and Gynecology* there are the following announcements: 1. Placental Souffle, Dr. Rapin, of Lausanne. 2. Artificial Alimentation of Young Infants, Prof. Zweifel. 3. Anæsthesia During Labor, Dr. Piachaud, of Geneva. 4. On the Law of Growth in Young Children During their First Year, and its Physiological or Pathological Deviations, Dr. Odier, of Geneva. 5. Pseudo-Membranous Dysmenorrhœa, Dr. Gautier, of Geneva. In *State Medicine* there are: 1. The Influence of Alcoholism on Mental Maladies, Dr. Magnan. 2. The Influence of the Adulteration of Alcoholic Liquors on the Health of those who Make and those who Consume Them, Dr. Gillaume, of Neufchatel. 3. Questions in Medical Geography, Dr. Lombard of Geneva. 4. The Influence of the Immigration of People from the Country into Cities, Prof. Dunant, of Geneva. In the *Biological Section* there are: 1. Physical Characters of the Electrical Discharge of the Torpedo; Physiological Analogies between this Discharge and Muscular Contraction, Prof. Marey, of France. 2. Cerebral Localizations, Dr. Broadbent. 3. On the Cause of Sleep, Prof. Preyer, of Jena. 4. Human Entozoa, Prof. Vogt, of Geneva. 5. The Function of the Spleen, Prof. Schiff. 6. Histology of the Egg, and the Rôle of the Zoösperms in Fecundation, Dr. Fol. 7. Physiological Antagonism, Prof. Prevost, of Geneva. In the *Section of Ophthalmology*, etc., there will be: 1. Indications for Enucleation of the Globe of the Eye in Relation to Sympathetic Ophthalmia, Dr. Warlomont, of Brussels. 2. Etiology and Prophylaxis of Myopia, Dr. Haltenhoff, of Geneva. 3. What are the Best Methods for Determining the Range of the Principal Functions of the Eye: (*a*) Acuity; (*b*) Perception of Color; (*c*) Refraction and Accommodation; (*d*) Field of Vision, and (*e*) Mobility of the Eye, Dr. Fol. of Geneva. 4. Tenotomy of the Tensor Tympani, Dr. Colladon, of Geneva.

Original Lectures.

LECTURES ON FEVERS.

By ALFRED L. LOOMIS, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

(Phonographically reported for THE MEDICAL RECORD.)

LECTURE IX.

TYPHO-MALARIAL FEVER (CONTINUED)—SYMPTOMS—DIFFERENTIAL DIAGNOSIS—PROGNOSIS—TREATMENT.

GENTLEMEN: I have mentioned the prominent symptoms which attend the development of that type of typho-malarial fever in which the malarial element predominates, and will now speak of those present in the septic type of this fever. Although the premonitory symptoms of this type, such as lassitude, headache, pains in the back and limbs, resemble those of typical typhoid fever, either a distinct chill or a complete intermittent or remittent paroxysm ushers in the febrile symptoms.

The rise in temperature following the ushering-in chill has no typical range; in some cases the rise is gradual, not reaching its maximum before the middle of the second week; in other cases the rise is sudden, reaching 104° F. or 105° F. within twenty-four hours after the occurrence of the chill. Throughout the whole course of the fever the same tendency to periodicity exists, which was noticed in the malarial type of this fever.

In typhoid fever, during the first week, there are indistinct forenoon remissions and afternoon exacerbations, but in this fever the remissions are well marked, especially on every second or third day, causing the fever to assume a more or less distinct tertian or quartan type. One of the earlier symptoms in this fever is well-marked hepatic tenderness; with the hepatic tenderness there is enlargement of the spleen, which, as the fever progresses, reaches a much larger size than is ordinarily met with in typhoid fever. During the first week the pulse is full and rarely more than 100 beats per minute, but during the second and third weeks it is small and compressible, and in severe cases is intermittent, and ranges from 110 to 130 per minute. The appearance of the tongue varies with the period of the fever. At first it is swollen, with red projecting papillæ, and has a light white coating. As the typhoid condition becomes more prominent its appearance changes; it becomes dry and brown, and frequently the brown coating cracks, and fissures are formed in the mucous membrane underneath. Should the tongue become moist and begin to clean, you may regard convalescence as established. The coating is removed in two ways, either gradually from the edge to the centre, or it is thrown off in flakes. In the latter case, after the removal of the coating, the tongue assumes a beefy red appearance, and after a short time may again become brown and dry. Under such circumstances there will be a renewal of the typhoid symptoms.

After the fever has continued a few days the surface becomes dry and harsh, and the skin assumes a bronzed hue, which is quite characteristic of this fever; sometimes, instead of this bronzed hue of the surface, there is well-marked jaundice.

The changes in the urine do not differ from those which usually attend febrile excitement. The urine gradually diminishes in quantity and deepens in color until convalescence commences, when it increases in quantity until convalescence is reached. It is rarely albuminous.

Diarrhœa may occur at any period. It is not usually excessive until the second or third week. There is nothing characteristic about the discharges. They are usually of an exceedingly fetid odor, watery, and dark colored; in the later stages of the disease they sometimes contain blood. In some instances the character of the stools is termed bilious, and an excessive hepatic secretion is then indicated; at other times they are of a dark clay color, showing a deficiency of the biliary secretion. With the diarrhœa there is usually more or less abdominal tenderness, especially in the right iliac region, but the tympanitis, which is so constant an attendant of typhoid fever, is rarely well marked in typho-malarial fever. In many cases there is retraction of the abdomen.

As I have already stated, headache is a very constant and prominent symptom in the early period of this fever. It often precedes the ushering-in chill. As the fever progresses it gives place to a delirium, which is never violent, but which is muttering in character, and is attended by restlessness and insomnia, or by drowsiness, subsultus, picking at the bed-clothes, and great nervous depression. If delirium is not present, or after it has disappeared during convalescence, there is great lack of mental vigor, and a tendency to mental sluggishness. The other nervous phenomena, which usually are present in any condition when marked typhoid symptoms exist, are not prominent in this fever. The subsequent phenomena which may attend its development will vary with the intensity of the fever and the resisting power of the patient.

In fatal cases, toward the close of the second week, symptoms of extreme prostration come on, the patient gradually passes into a state of stupor, which lapses into a state of coma, and death ensues.

In cases that are to recover, by the end of the second week the tongue begins to clean, the gastric and intestinal symptoms, with the exception of the diarrhœa, begin to subside, the pulse becomes slower, the nervous disturbances disappear, the appetite returns, and the patient enters on a convalescence which is usually protracted.

It is apparent that the early stage of this fever very closely resembles that of simple remittent, while its later stage as closely resembles that of typhoid.

The phenomena of both stages may be modified by certain anti-hygienic surroundings to which those suffering with this fever may have been subjected to prior to its development. Thus, when it prevails among those who have suffered privations, been badly fed, badly clothed, overcrowded in badly ventilated apartments surrounded by decomposing animal and vegetable substances, although the fever is attended by the same general phenomena which characterizes the typhoid type, there are certain variations which ally it to relapsing fever. Prominent among these are neuralgia and arthritic pains in various parts of the body, especially in the back and limbs, hemorrhagic tendencies, marked by bleedings from the gums, mucous surfaces, and not unfrequently large ecchymoses occur in various parts of the body. In this class of cases from the commencement of the fever it is of low type, with quotidian exacerbations and remissions. Diarrhœa usually precedes the development of the febrile symptoms. Frequently, during the second week, a muttering delirium comes on, accompanied by drowsiness and a tendency to stupor. Despondency, indisposition to make any exertion, and a state of utter indifference as to the future, is frequently met with during the entire period of the fever.

In fatal cases, death may be the result of hemorrhage from the mucous surfaces, or from exhaustion. In this class of cases there is a great irritability of the heart and a peculiar mental and physical prostration.

In cases that recover, convalescence comes on late, and is slow and tedious. Diarrhœa frequently follows the subsidence of the fever, which in many cases cannot be controlled, and leads to a fatal result.

The complications which may modify the course of any variety of typho-malarial fever are very similar to those which are met with in typical typhoid fever. Of these the most frrquent is inflammation of the respiratory organs, the development of which is marked by those symptoms which usually attend the development of the different acute pulmonary affections. In the majority of instances the signs of bronchitis are not present until the fever is well established. The bronchitis resists treatment, and does not disappear until convalescence is fully established. When pneumonia occurs it is catarrhal in character, and few of the strongly marked rational symptoms of ordinary pneumonia are present. The physical signs, however, will always enable you to determine the presence of pulmonary complications, and any great irregularity in the clinical history of this fever should lead you to make a careful physical examination of the chest.

It is sometimes difficult to distinguish between the cerebral symptoms of this fever and those symptoms which attend meningeal complications, but the meningeal complications are of very rare occurrence, and it is safe to assume that they are not present until some of the diagnostic symptoms of meningitis occur.

We rarely have serious abdominal complications, such as intestinal perforation, peritonitis, and hemorrhage, and their advent is marked by such urgent symptoms that one loses sight of the ordinary symptoms of the fever.

It is hardly necessary for me to refer to those modifications in the clinical history of this fever which follow the development of abscesses, bed-sores, gangrene, etc.

Differential Diagnosis.—The affections with which typho-malarial fever are likely to be confounded are typhoid, remittent, relapsing, typhus, and yellow fevers.

The septic type of typho-malarial fever, in many of its phenomena, so closely resembles typhoid fever that frequently it is difficult to make a differential diagnosis. I will briefly state the points of difference in their clinical history.

The advent of typho-malarial fever is usually marked by a distinct chill, while typhoid comes on insidiously, and is not attended by a distinct chill, only by a chilly sensation. The rise of temperature in typho-malarial fever is sudden and follows no typical range, while in typhoid the typical range of temperature during the first week is almost diagnostic of the fever.

In typhoid fever, on the sixth or eighth day, rose-colored spots appear; these are a distinctive mark between it and typho-malarial fever; although in the latter an eruption may be present, yet it has none of the characteristics of the typhoid eruption, is not rose-colored, does not disappear on pressure, and remains visible throughout the whole course of the fever.

Besides the absence of these characteristic symptoms of typhoid fever, in typho-malarial fever we have a distinct periodicity in the febrile action, a certain icteroid hue of the skin, hepatic tenderness, extensive splenic enlargement, and great gastric disturbance; conjoined with these, the appearance of the tongue, the character of the diarrhœa, and the non-infectious character of the stools in typho-malarial fever serve as important aids in the differential diagnosis of these two forms of fever. In typho-malarial fever, upon microscopical examination of the blood, we find free pigment; this is never found in the blood in typhoid fever.

The malarial type of typho-malarial fever resembles remittent fever in its ushering-in symptoms. In both cases there is a chill followed by fever, attended by one or more distinct exacerbations and remissions. The early appearance of the enteric symptoms, attended by other well-marked typhoid phenomena by the end of the second week, establishes the diagnosis of this type of malarial fever, and as the fever progresses the typhoid condition becomes more and more apparent. Besides, remittent fever yields more promptly to the use of quinine than does typho-malarial fever.

Severe cases of typho-malarial fever, which are complicated by scorbutic tendencies, marked by petechiæ and great prostration of the vital powers, may be confounded with typhus fever; yet the severity of the attack, the higher range of temperature, the greater frequency of the pulse, the dusky countenance, the absence of diarrhœa and all other abdominal symptoms in typhus fever, renders it easy to make the differential diagnosis of the two types of fever. Besides, typhus fever has a characteristic eruption, is only propagated by contagion, and if it prevails, does so epidemically. Occasionally yellow fever has been confounded with typho-malarial fever, and on this account I will mention some of the prominent diagnostic symptoms of yellow fever which distinguish it from typho-malarial fever.

The range of temperature is lower in yellow than in typho-malarial fever, and on the third or fourth day it falls markedly lower, and there is more or less complete remission. The circumorbital pain, the appearance of the eye, the peculiar color of the skin, the character of the matter vomited, the absence of diarrhœa. the presence of albumen in the urine, and the shorter duration of the disease, will enable you to make the diagnosis of yellow fever. Again, yellow fever usually prevails epidemically, and is confined to certain localities and certain seasons of the year. It is a portable disease, and the yellow fever poison may be conveyed from an infected to a non-infected district by means of clothing or merchandise, while the poison of the typho-malarial fever is of endemic origin, and cannot be carried beyond the infected district.

The points of differential diagnosis between typho-malarial and relapsing fever will be considered under the head of relapsing fever.

The differential diagnosis between cerebro-spinal meningitis and typho-malarial fever is sometimes attended with great difficulty.

Prognosis.—The ratio of mortality in typho-malarial fever varies greatly in the different regions in which it occurs, and according as the malarial or septic element predominates. The hygienic surroundings of the patient and the range of atmospheric temperature will also very greatly influence your prognosis. Statistics of this fever in different localities and in different years give the ratio of mortality from one in twelve to one in twenty-four. The septic type is more fatal than the malarial type. Great caution should be exercised in prognosticating the result of any case, for the apparently mildest cases sometimes suddenly assume a severe type and terminate fatally, while very severe and apparently hopeless cases unexpectedly improve, and recovery takes place.

The average duration of these cases which terminate in recovery is from three to four weeks; the

duration varies with the different types of the fever. In the malarial variety the duration is always shorter than in the typhoid. The period of convalescence is prolonged; three or four weeks often elapse before the patient is completely restored to health. A fatal relapse may occur at any period during convalescence. In those cases that terminate fatally, death most frequently occurs during the second or third week; it may occur as late as the close of the sixth week.

The occurrence of any of the complications to which I have referred as possible during the course of this fever will very materially influence the prognosis in any given case. Capillary bronchitis and pneumonia are especially dangerous when they develop during the third week of the fever.

Anti-hygienic surroundings, such as overcrowding and improper food materially affect the prognosis. If typho-malarial fever prevails among those who are crowded into badly-ventilated apartments, who from filth and improper nutrition have septic and scorbutic tendencies, the ratio of mortality is much greater than among those who are free from such complicating influences.

The symptoms which may be regarded as indicating an unfavorable termination are a continued high temperature, showing little or no tendency to remission; a very frequent, feeble, fluttering pulse; profuse diarrhœa, the discharges at times being involuntary and containing mucus, pus, and blood; a dry, red, cracked and fissured tongue; great drowsiness, with a tendency to stupor and coma, and the appearance of petechial spots on the surface of the body, attended by frequent hemorrhages from the lips, gums, and tongue. In a severe case, the occurrence of any of these complications renders the prognosis more unfavorable. The character of the prevailing fever will also greatly influence the prognosis in any given case. If the type of the prevailing fever is mild, or if comparatively few deaths have occurred, though the symptoms in a given case may appear unfavorable, recovery is probable. If, on the other hand, the type is severe, and many deaths have occurred, apparently mild cases will suddenly become severe, and the prognosis becomes unfavorable.

As I have already stated, the hygienic surroundings and the previous habits of the patient very greatly influence the prognosis. With drunkards, and those enervated by vicious habits, a mild type of this fever will probably prove fatal.

Treatment.—The treatment of typho-malarial fever varies with its type. No plan can be presented which will be applicable to all cases.

As in other forms of disease, the first question that presents us under the head of treatment is, cannot the development of this fever be prevented? While speaking of its etiology, I stated that its development was principally due to three causes—namely, malarial poison, overcrowding, and improper diet. In a large proportion of instances it is possible to do away with the last two causes. The overcrowding and the faulty diet may be prevented, and thus the septic poison which gives to this fever its typhoid type may be destroyed or its development prevented. The strict observance of hygienic laws in the localities where the fever prevails has in some instances entirely changed the type of the disease. Even after the fever symptoms have been well developed the removal of patients from anti-hygienic surroundings has frequently been attended by the most satisfactory results. When isolated cases of this fever are met with in localities apparently free from such sources of infection a careful search should be instituted, in order to find the source of the infection. Defective sewerage and faulty drainage have been found to be fruitful sources of infection. The therapeutic measures which may be employed in the treatment of this form of fever vary with the type of fever and the peculiarities of each individual case. There are no specifics.

In those cases in which the malarial element predominates, the administration of quinine as an antiperiodic will produce the desired result, and in many instances arrest the progress or shorten the duration of the fever; but in those cases in which the septic element predominates, while quinine may act as an antipyretic, in the same way as it does in typhoid fever, it has no power to arrest the progress or shorten the duration of the fever.

In those cases in which the malarial element predominates, which are ushered in by a distinct chill, followed by one or two distinct remissions and exacerbations, during the first remission twenty or thirty grains of quinine, in two or three doses of ten grains each, should be administered every hour until the desired quantity has been given. If it is promptly and freely administered it seldom fails to produce a favorable result; usually the febrile exacerbations will not return, or if they do they are less severe, and in a few days entirely disappear.

In those cases which begin more insidiously and are developed more gradually, if there is a distinct periodicity to the febrile phenomena, without distinct remission, although, by the administration of quinine, you may not shorten the duration of the disease, yet the fever will run a modified and very much milder course.

If the first full doses of quinine fail to produce any effect in this class of cases, its administration in moderate doses, perhaps ten grains twice a day, must be continued for several days before it will markedly modify the severity of the fever. In no type of this fever does the quinine exert any specific influence except over the malarial element; the enteric phenomena are either not at all, or only indirectly, modified by the antipyretic power of the drug. Hence it is apparent that in those cases in which the malarial element is slight, and in which the typhoid element is prominent, while quinine fails to exercise any controlling influence over the progress of the fever, it will mitigate its severity, and act as more powerfully as an antipyretic than it will in any other form of continued fever.

It has been claimed by some that arsenic has a specific influence over typho-malarial fever, and that it exercises a peculiar and most beneficial effect upon the intestinal lesions, materially shortening the duration of the fever. There is little doubt but that arsenic, like quinine, acts beneficially in many cases of the malarial type of this fever, but unquestionably this beneficial effect is due to its acknowledged power over malarial affections, and not to any specific influence which it has over the fever. As an antiperiodic it is inferior to quinine.

The antipyretic treatment of typho-malarial fever does not materially differ from that recommended for the reduction of temperature in typhoid fever. It is of importance to remember that this class of patients do not bear well the prolonged application of cold to the surface, either by means of the cold bath or the cold pack, and that, unless the antipyretic power of quinine is added to the application of cold, very little benefit will be obtained from its employment. The danger resulting from the injudicious use of cold baths is greater in this than in any other infectious disease.

The rules for the administration of stimulants in

typho-malarial fever are the same as those given for their administration in typhoid fever. The effects of the first few doses should be carefully watched. They should never be given indiscriminately, for there is greater danger of over-stimulating in this than in any other fever. Their use is indicated whenever signs of heart-failure are present, such as a feeble pulse and an indistinct first sound of the heart. No fixed rule can be laid down as regards the quantity to be administered in any given case; it will vary with the type of the fever and the previous habits of the patient; it should always be administered at stated intervals. The period of the fever at which their administration should be commenced will also vary. In some cases, stimulants are never required, while in other cases, from the very onset of the fever, they are demanded. In the majority of cases their use is not indicated before the end of the second week. It must be borne in mind that alcohol is not a specific curative agent in this fever, but that the object of its administration is to support the heart-power and prevent the vital powers from falling below the point at which reparative processes are possible. The use of stimulants is not necessarily contraindicated when delirium is present. Frequently after their administration the delirium will pass away, and only when it is decidedly increased by their use should they be abandoned.

The state of the bowels, skin, and kidneys demands the closest attention. If, early in the disease, the bowels are constipated, a calomel purge combined with ten or fifteen grains of quinine will often be followed by marked benefit. In any stage of the disease brisk purgation should be avoided. If diarrhœa is present, it should not be interfered with unless it becomes exhausting; then it should be checked by small doses of opium combined with astringents.

When the skin becomes dry and parched, if cold baths or packs are not admissible, the surface should frequently be sponged with tepid water. It has been proposed by some to apply oil to the surface two or three times every day, when, from extreme exhaustion or any other cause, bathing or sponging of the surface cannot be practised.

Special notice should be taken of the quantity and character of the urine. If it becomes scanty and high colored, or if there be a temporary suppression, it is of the utmost importance that the functions of the kidneys should be immediately restored. This can be best accomplished by the administration of digitalis combined with spirits of nitre. Sometimes retention may be mistaken for suppression of urine, unless a careful examination be made as to the condition of the bladder. Symptoms referable to disturbance of the nervous system sometimes require special treatment. If there is extreme restlessness, muscular twitchings, or active delirium, opium may be administered in full doses. The effect of the first dose must be carefully watched. If sleep soon follows its administration, and the delirium gradually subsides without any aggravation of the other symptoms, its use may be continued; if, instead of producing sleep, the patient becomes more wakeful, and the delirium is increased and more active, and the other symptoms are greatly aggravated, its use must be immediately abandoned. Under these circumstances chloral may be tried with great care.

Some claim that spirits of turpentine in the treatment of this form of fever has almost a specific power, while others regard it useful only as a stimulant. My own experience leads me to employ it only as a stimulant during the second and third week of the disease, when there is great prostration and marked typhoid symptoms. It may be given as an emulsion in doses of twenty drops every two hours.

The *diet* best suited to patients with this fever is milk administered in the same way as was proposed in the case of typhoid fever patients.

Special complications occurring during typho-malarial fever must be met with such remedies as the condition of the patient and the peculiar complications may require.

Progress of Medical Science.

The Physiological Position of Copper.—Mr Edward Clapton, in a letter to the *Lancet*, states tha it is true that the systems of workers in copper may b saturated with the metal without any signs of interfer ence with the health, but that this can hardly be con sidered the rule. A large proportion of them com plain of habitual lassitude and giddiness, and a dis inclination to go about when not at work, as othe workmen do. Some of them are exceedingly thi and have unhealthy, sallow-looking complexions, an nearly all complain of more or less dyspepsia. It a noticeable fact, however, that all kinds of wound heal very rapidly in these men, though similar wound in lead-workers are soon attended with suppuratio and constitutional irritation. Mr. Clapton could n find that there had been a single instance known cholera attacking these workmen, even in the wor epidemics; a similar immunity has been noticed the copper foundries of Edinburgh and Paris. Co per, however, is not physiologically an astringent, f the workmen rarely suffer from constipation, a diuresis is common among them. They also persp rapidly, the perspiration having a greenish color. I Pary has proved conclusively that the copper is a sorbed into the system, and exists in the secretions well as in chemical combination with various tissu such as even the hair and bones. He has also shown th copper is a constant component element of the bo The reason, then, of the comparatively slight inju from this metal in large proportions is doubtless cause the system can tolerate an excess of what i natural constituent infinitely better than it can introduction of what is entirely foreign, such as le arsenic, and mercury. But this comparative immun does not apply to those preparations in which union with oxygen has been promoted by acid fatty bodies, and especially by acetous fermentat There is no danger in subsisting on cupriferous arti of diet, such as bread, beefsteak, etc., or in breath for a time the air of a factory when it is hig charged with bright particles of the metal, or in tak sulphate of copper daily for a considerable time. there is great danger in taking even very small qua ties of verdigris or emerald green, or any prepara of copper which may be used to give a light-g color to "tinned peas" or any other article of With regard to the preserves which Dr. Hassall fo impregnated with copper, it is well known that large quantity of sugar which they contain re them harmless, the experiments of Orfila and D having proved that sugar is a decided antidote t poisonous action of copper. The same freedom danger would not apply to vegetable acids or substances in copper culinary utensils. Mr. Cla had a patient at St. Thomas's Hospital, a sailor, suffered fearfully from gastro-enteritis brought drinking lemon juice which had been kept in a c

tank. The rest of the crew suffered in a similar manner.

In France the action of copper has of late been the subject of frequent discussion in many of the societies. M. Laborde has found by experiments that if three or four grammes of sulphate of copper, thoroughly dissolved and filtered, be injected under the skin of a dog of medium size, it will cause death in from eighteen to twenty hours. The symptoms are: a certain amount of pain at the points of injection, contraction of the pupils, paralysis of the hind-quarters, gradual acceleration of the pulse and respiration, and death in a sort of prostration. At the autopsy of one of these dogs, M. Laborde found congestion of the heart, lungs, liver, and kidneys; these organs were impregnated and infiltrated with dark, sepia-colored blood, that presented the characters of septicæmic blood. A contraction of the neck of the bladder had rendered the animal anuric; the urine contained a large quantity of copper, and also blood-globules and albumen. The gastric mucous membrane was very much inflamed and covered with a dark, bloody fluid.

In the discussion on M. Laborde's paper, in which the above case was detailed, in the *Société de Biologie*, M. Galippe denied that the salts of copper are really a poison, though he of course admitted their caustic action. He maintained that in the above case the death was due to the local lesion and not to a veritable copper intoxication, and further that it is impossible to poison a man with sulphate of copper without his knowledge. The taste of this and of other salts of copper is so detestable and so penetrating that if a drop of a solution of one and a half grains of this salt in a pint of water, be placed on the tongue it will leave the most disagreeable taste. He called attention also to the fact that the proportion of copper found normally in the liver after a sudden death is much larger than when death has followed a lingering illness, and argued that as the normal figures are still unknown, it would be rash to fix on a maximum figure, above which would be considered proof of accidental or criminal poisoning. M. Rabuteau stated that two or three grains of bichloride of copper dissolved in ℥xxij.-xxx. of water and injected under the skin of a frog caused paralysis of the muscles, especially of those of the hind legs, but that the properties of the sensitive and mortor nerves are preserved; death follows in from half an hour to an hour. —*The Lancet*, March 24th, and *Gazette Médicale de Paris*, March 31.

Alimentation of Infants while Suffering from Intestinal Catarrh.—Prof. Demme, of Berne, believes that cow's or goat's milk should not be given at all to infants who are suffering from intestinal catarrh. It appears in the passages in the form of coagulated, undigested masses. The affection prevents the formation or the normal action of the gastric ferment, and the milk, in traversing the digestive canal, acts as a foreign body, which irritates the mucous membrane, undergoes a putrid fermentation, and causes the continued formation of watery, putrid discharges. As a rule, human milk does not exert these unpleasant effects. Condensed milk is less injurious than cow's milk, although the large quantity of sugar it contains favors fermentation and decomposition. In the Hôpital Jenner, infants affected with acute intestinal catarrh are nourished in the following way:

Twice a day, from a quarter of a pound to a pound of beef is deprived of fat, cut up into fine pieces, infused for an hour in a quart and a half of cold water, and then boiled down to a quarter of its previous bulk; it is then set aside for a while, the fat skimmed off, and the remainder filtered and set aside to cool completely. It is given cold, in small quantities every two or three hours, and mixed with barley or rice water, which should be prepared first each time by boiling a small quantity of rice or barley in water for a few minutes. When the children are very thirsty, the rice or barley water is given in the intervals without sugar. When they refuse to take the water and bouillon, Prof. Demme resorts at once to albuminous water. This is prepared by beating up the white of one or two eggs, and then adding water in small quantities at a time, while the mixture is being gently stirred. In this way a well mixed fluid is obtained, which is mucilaginous and tasteless, and is readily taken by the children. For infants from one to ten weeks of age, Prof. Demme orders for the bouillon, from a quarter to a half-pound of meat per diem. One, two, or three whites of eggs, according to the age of the patient, suffice for from half a pint to a pint and a half of water, which quantity may be administered daily. When the patients begin to lose strength, he gives from five to thirty drops of the purest cognac from three to five times a day. When in the cases of older children, it is deemed advisable to continue the use of milk, it is diluted with rice or barley water. He has given up the use of grated raw meat in acute intestinal catarrh of infants.

With regard to medicinal treatment, Prof. Demme has found that the profuse serous diarrhœas yield readily to very small doses of calomel (gr. $\frac{1}{2\,0}$ to $\frac{1}{1\,0}$) and opium (gr. $\frac{1}{1\,0\,0}$ to $\frac{1}{3\,5}$) every two or three hours. Sometimes he has had recourse with advantage to nitrate of silver, with glycerine and a small quantity of opium. He leaves out the opium when possible, because it lessens the strength of the patients. He believes that tannin, bismuth, the vegetable astringents, etc., only irritate the mucous membrane and prolong the affection. The above plan of nourishment is as applicable for the chronic as for the acute form of intestinal catarrh. In the former, Mr. Demme has found the continued use of albuminous water and cognac to be especially valuable.—*Gazette Obstetricale*, April 5, 1877.

Jaccoud on the Fæcal Origin of Typhoid Fever.—As the result of a most exhaustive study of typhoid fever, in which one hundred and six epidemics occurring in different parts of the world were analyzed, M. Jaccoud reaches the conclusion that fæcal matters engender the disease, but are not *typhogenic* unless they enclose the specific typhoid poison, which usually comes from the dejections of typhoid patients. There are circumstances, however, under which the fæcal matters are poisonous without having had any previous admixture of typhoid matters; in such cases the poison is elaborated in the fæcal matters, which themselves are, as before, merely the agents of transmission.—*Journal de Médecine*, May, 1877.

Belladonna in Constipation, the Result of Paralysis of the Bowels.—Dr. H. A. Du Bois, of San Rafael, Cal., writes: "In a case of paralysis of the bowels, the result of apoplexy, where there had been no discharge for two weeks, and where croton oil and other powerful cathartics had failed, and in which the ascending colon only could be emptied by the rectal tube, small doses—five drops three times a day—of the fluid extract of belladonna, continued for two days, enabled the tube to enter the transverse colon, and procured thorough action through the whole length of the canal. I was indebted to Dr. Taylor, U. S. Navy, for this suggestion."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE STATE MEDICAL SOCIETY.

THERE have been so many meetings of State and other medical societies during the past few weeks, that in passing any comments upon them there is much danger of a repetition of ideas. After what we have already said of other organizations of the kind, there would be under many circumstances a temptation to dismiss our own State Society with some commonplace allusions, and with some of the usual complimentary references to a successful meeting, a prosperous body, and a few other set phrases usual on such occasions. But the truth is the meeting has been sufficiently noteworthy to invite independent comment, not only in its own behalf, but on that of other similar organizations which may wish to benefit by its experiences of management and its peculiar method of internal administration. The last session was in every respect a busy one. The programme was very full, and was scrupulously carried out. Indeed, it may not be considered a reflection upon the efforts of the other Presidents to say that more papers were read and more business transacted during the past session than on any previous occasion. This result was in no small degree due to the previous publication of the schedule, to the systematic division of time for the reading of the different papers and for the transaction of other business. The securing of papers beforehand has had a fair trial, and to a certain extent it has succeeded. By this means the time of the meetings has been fully occupied, and the members have had opportunities for preparing themselves for the discussions which were likely to follow the papers announced. So far so good. But there are other difficulties to be considered which are of no small moment in the way of guaranteeing and securing success. There is a great risk of being burdened with useless if not stupid papers. If the President asks indiscriminately for contributions, and accepts them merely on the representations of the authors, there is a possibility that while he may obtain much that he may desire, there is an equal chance that he may as frequently have forced upon him for the acceptance of the Society papers of very inferior merit. He can hardly restrict his solicitations to men of known ability, as this would be obviously unfair to the other members who may wish to work. Although during the meeting the papers presented were, on the whole, creditable and interesting, there were some concerning which some exceptions should have been made.

We believe that the plan of soliciting papers is a good one and should on general principles be carried out by all large scientific bodies, but we would suggest as a proper safeguard against the abuse of privilege, if not of courtesy, on the part of writers, that the acceptance of said papers should be conditional with the action of a properly appointed Executive Committee. Far from this being the case at Albany, the Business Committee appeared to have nothing to do but to read the order of exercises.

The change in the manner of appointing the Nominating Committee is in every respect a desirable one, and will tend to destroy those ring influences which have in years gone by disturbed the harmony of the rural representations. Heretofore the committee was appointed by the President, and upon his selection depended absolutely the government of the Society from year to year. It is not difficult to see how, with the best of intentions on the part of the appointing power, the ring influences could be indefinitely perpetuated. Now, however, the power is transferred to the members and delegates themselves, who duly elect their representative on the committee, and he is formally named by the President. We fail to imagine how any improvement could be made upon this arrangement, any method of appointment which would be better calculated to suit the majority, or make the organization more thoroughly representative. It effectually removes all trouble connected with the nomination of permanent members, as the matter will be in the hands entirely of those who are best calculated to judge for their particular district.

The change of the time of meeting was a matter which, as the result showed, the Society was hardly prepared to discuss. In fact, no one would have thought seriously of the subject had it not appeared in the programme as a special order of business. We do not think that there was any pressing necessity for a change. Except that the meetings were so near those of the American Medical Association, there was no real objection to the month of June. The argument in favor of meeting during the session of the Legislature amounted practically to nothing, as far as the interests of the Society are concerned. On the other hand, the change to the most inclement month in the year, and at a time when the hotels in Albany are crowded and uncomfortable, will hardly be acceptable to the larger number of members. But the change has been made, and if some of the delegates are snow

bound on the way, they have the consolation of knowing that one way to keep from freezing is to shout, clap hands, and stamp. But even for such as might be willing to run the risk, we presume it would be much more agreeable to them, if not to the Society, to save their breath until they might arrive in Albany. As far as Albany is concerned as a place of meeting, we should prefer the winter to the summer months—in fact, the more inclement the weather the better, as there would be more opportunity for remaining within doors. But as there is no chance, at least for the present, of changing the place of meeting, we must be content and hope for the best.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Seventy-First Annual Meeting.

HELD IN ALBANY, JUNE 19, 20, AND 21, 1877.

TUESDAY, JUNE 19TH.—FIRST DAY.—MORNING SESSION.

The Society met, pursuant to statute, in the Assembly Chamber of the Capitol, at Albany, at 11 o'clock A.M., and was called to order by the President, DR. E. R. SQUIBB, of Brooklyn.

The Scriptures were read, and prayer offered by the Right Rev. Bishop Doane.

INAUGURAL ADDRESS OF THE PRESIDENT.

The President then proceeded to read his opening address, in which he congratulated the members of the Society on its prosperity, and suggested for its still further advancement that the presiding officers be selected with the more single purpose of getting a good active servant of the Society, who would carry out its work with energy; that the presiding officer should carry out and be responsible for the work of the Society at the meeting over which he presided; that the address which usually occupied the Wednesday evening session be discontinued, or at least the penalty of $25 for failure to deliver it be abolished; that the Secretary's annual salary be increased to $500, or that the editorship of the Transactions be separated from the duties of the Secretary, and given to an editor; that each volume of the Transactions hereafter should have a copious index; that a list of delegates by counties, with the time of election and expiration of service, should precede the list of permanent members, and be kept up with official accuracy, so that the true character and construction of this body as a society of delegates should be more prominent, and that the Treasurer should receive compensation for the time and labor required of him by the Society.

DR. GRAVES, of Steuben, moved that a vote of thanks be extended to the President for his excellent address, and that it be referred to a committee.

ANNOUNCEMENT OF COMMITTEES.

The President announced the following committees:

On Credentials—Drs. Wm. Manlius Smith, of Onondaga; G. H. Blake, of Livingston; A. L. Saunders, of Madison.

On Receptions and Arrangements—Drs. Wm. H. Bailey, E. R. Hun, of Albany; A. W. Tucker, of Washington.

On Business—Drs. George Burr, of Broome; S. F. MacFarland, of Chenango; R. H. Ward, of Rensselaer.

On Ethics—Drs. Wm. C. Wey, of Chemung; Austin Flint, of New York; Frederick Hyde, of Cortland.

On Nominations—Drs. T. F. Rochester, of Erie; A. Hutchins, of Kings; P. R. H. Sawyer, of Westchester; C. E. Witbeck, of Albany; J. M. Rose, of Herkimer; L. A. Van Wagner, of Madison; J. H. Crittenden, of Broome; C. G. Pomeroy, of Wayne.

A recess of fifteen minutes was taken, for the purpose of organizing committees, receiving credentials, and for registration of names of permanent members.

On reconvening, the Committee on Credentials reported a sufficient number of members present to permit the transaction of business.

DR. W. H. BAILEY, Chairman of the Reception Committee, introduced the following delegates from other State Societies; Dr. Collins, of the Massachusetts State Medical Society; Dr. Gillett, of Pennsylvania State Society; and Dr. D. A. Curry, of the New Jersey Society.

The delegates made appropriate responses.

MEMBERS BY INVITATION.

On recommendation of the Committee of Arrangements the following gentlemen were made members by invitation: Dr. G. H. Fox, of New York; and Drs. S. B. Ward, John Thompson, J. B. Stonehouse, W. L. Purple, D. H. Cook, and G. H. Newcomb, of Albany.

On motion made by DR. HUTCHINSON, of Brooklyn, the appointment of the Committee upon the President's Address was referred to the Nominating Committee.

TREASURER'S REPORT.

The Treasurer reported the balance on hand at the last report was $287.71; received during the year, $1,384.31; disbursed during the year, $1,684.19. In the general fund the receipts were $1,922.76, and the disbursements $2,132.31, leaving a balance due Treasurer of $209.55. The report was referred to an Auditing Committee, consisting of Drs. Ellsworth Eliot, W. Govan, and B. F. Sherman.

The report of the Secretary as Librarian was read and referred to the

COMMITTEE OF PUBLICATION.

The report of the Committee on Publication was read and referred to the Committee of Publication for the coming year.

DR. C. S. WOOD, of New York presented a report as delegate to the American Medical Association, which was referred to the Committee of Publication.

DR. H. P. FARNHAM, of New York, presented a like report as delegate to the Massachusetts State Medical Society, and it received a like reference.

DR. BALL, of Kings, made a verbal report as delegate to the New Jersey State Medical Society; and in view of the unusual hospitality shown the delegates from the New York Medical Society, the President requested that the report be submitted in writing and entered upon the minutes.

The Society then adjourned to meet at 3 P.M.

FIRST DAY.—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by the President.

DR. ROCHESTER, Chairman of the Committee on Nominations, announced the Committee upon the President's Address, as follows:

Drs. Ellsworth Eliot, of New York; A. Van Derveer, of Albany, and H. Jewett, of Canandaigua.

RECENT IMPROVED METHODS OF DIAGNOSIS AND TREATMENT IN URETHRAL SURGERY, WITH TABULATED STATEMENTS OF RESULTS IN FORTY-FIVE CASES.

Dr. R. W. Pease, of Syracuse, read a paper upon the above subject, which was substantially a support of the views entertained by Dr. F. N. Otis, of New York, regarding the diagnosis and treatment of stricture of the male urethra.

Dr. Kendall, of Baldwinsville, corroborated the experience of Dr. Pease, and Dr. Kneeland referred to one of Dr. Pease's cases as having been a man who had been under his personal observation.

Dr. Case, of Oneonta, referred to the precaution of using the india-rubber coil for applying cold to the penis, lest unpleasant hemorrhage should occur.

The paper was referred to the Committee of Publication.

FOUR CASES OF SUDDEN DEATH—CORONER'S INQUESTS.

Dr. J. Kneeland, of South Onondaga, reported two cases, as samples, of those which had fallen under his observation as coroner, and in which no cause of death could be found.

Dr. Rochester, of Buffalo, referred to cases illustrating, *first*, carelessness on the part of coroners in ascribing death to unknown causes, when very clear cause of death was subsequently ascertained by careful examination, the case being one of murder; *second*, cause assigned by those who were ignorant, hence not reliable, no cause being found by competent observers.

Paper referred to Committee of Publication.

PAPERS READ BY TITLE.

Obituary Notice of Dr. James Thorn, M.D., of Albany. By Dr. R. H. Ward, of Troy.

Biographical Sketch of Dr. A. B. Watkins, M.D., of Troy. By Dr. H. B. Wheton.

Referred to Committee of Publication.

OPERATION FOR CLOSURE OF CLEFT OF HARD PALATE, WITH REPORT OF CASES.

Dr. A. Van Derveer, of Albany, read a paper upon the above subject, in which he took the ground that the surgeon of the present day could assure the friends of the patient that complete success could be obtained by the operation. Ferguson's operation was recommended, and it was thought best to operate immediately after the first dentition.

Dr. Goodwillie, of New York, exhibited a wax model of a case upon which he had operated, and described his method of operating.

Dr. E. C. Hutchinson, of Utica, referred to a modification in the operation which he had practised in one case, namely, the child was placed upon the back, with the head downward over the table, so that the blood ran through the nostrils. He made the muco-periosteal flaps of Langenbeck, and his patient made a good recovery.

The paper was referred to the Committee of Publication.

SANITARY INSPECTION OF SCHOOLS.

Dr. Wm. C. Wey, of Elmira, read a paper upon the above subject, as a contribution to the report of the Committee on Hygiene. The importance of sanitary inspection in our schools was pointed out in a clear and concise manner.

The paper was referred to the Committee of Publication.

WOORARA IN THE TREATMENT OF RABIES CANINA.

Dr. J. W. Greene, of New York, sent a communication upon the above subject, in which he recommended the use of this article in the treatment of the disease referred to, and, in addition, suggested the use of ice and dry cupping to the spine.

Dr. Wey moved that the communication be referred to the Committee of Publication, with the request that Dr. Greene be requested to complete his paper for publication, giving the Doctor thirty days' limit.

The paper was discussed by Drs. Kneeland and Putnam-Jacobi. Dr. Jacobi argued that, from the physiological action of the drug in question we should not, theoretically, expect much benefit from its use in rabies or any convulsive affection.

The President remarked that perhaps it might be beneficial in breaking up the habit of convulsion, and in that way assist recovery.

THE FORCIBLE AND RAPID DILATATION OF THE CERVICAL CANAL, FOR THE CURE OF ANTEFLEXION.

Dr. H. T. Hanks, of New York, read a paper upon the above subject, in which he set forth the advantages arising from the use of hard rubber bougies in the treatment of anteflexion of the uterus, claiming for the method all that could be obtained by surgical procedure for the cure of dysmenorrhœa and sterility. His instruments have been described in The Record for September of 1875.

Dr. John Ball, of Brooklyn, read a paper upon

FORCIBLE AND RAPID DILATATION OF THE CERVIX UTERI FOR THE RELIEF OF STRICTURE, CONICAL CERVIX, STERILITY, ETC., ETC.

The paper was properly referred.

The hour of six having arrived, the Society adjourned to meet at 8 P.M.

First Day.—Evening Session.

The Society was called to order at 8 P.M. by the President.

Credentials and letters were acknowledged from Dr. R. R. McIlvaine, of New York, as delegate to the New York State Medical Society from the Ohio State Medical Society.

PUERPERAL METASTATIC IRIDO-CHOROIDITIS.

Dr. Thomas R. Pooley, of New York, read a paper upon the above subject, in which he reported a case that he had observed in conjunction with Dr. McKenzie, of New York, giving a history of the puerperal disease and the eye affection. The peculiarities of this form of inflammation of the choroid were pointed out, and the theories of its mode of production; and also the differential diagnosis between purulent inflammation of the choroid occurring in cerebro-spinal meningitis and other affections of the brain from that which occurs in septic poisoning of the blood. The paper was referred to the Committee of Publication.

PUNCTURED WOUND OF LUNG, DIAPHRAGM, AND LIVER, WITH RECOVERY,

by Dr. S. L. Parmelee, of Watertown, was the subject of the next paper, and elicited discussion from Drs. Kendall, Chapman, Kneeland, Vosburg, and Gouverneur M. Smith. The discussion related chiefly to the evidence regarding puncture of the liver. The paper was referred to the Committee of Publication.

REPORT OF CASE OF FRACTURE OF THE BASE OF THE SKULL, WITH RECOVERY,

by Dr. Joshua B. Graves, of Corning, gave rise to a protracted and not altogether profitable discussion, which was participated in by Drs. Hyde, Beckett, Chapman, Sawyer, Kneeland, Sherman, and others. The discussion consisted mainly in the relation of re-

markable cases in which recovery had taken place. The paper was referred to the Committee of Publication.

At the hour of 10 P.M. the Society adjourned to meet Wednesday, June 20th, at 9.30 A.M.

THURSDAY, JUNE 20TH.—SECOND DAY.—MORNING SESSION.

The Society was called to order at 9.30 A.M. by the President, and prayer was offered by Rev. Dr. Upson.

Minutes of the previous session read, corrected, and approved.

The Business Committee announced the reception of communications from Oneida County, Herkimer County, and Albany County, all of which were referred to the Committee of Publication.

OBITUARY NOTICES.

DR. HARVEY JEWETT, of Canandaigua, read a memoir on the late Dr. George W. Cook, of Canandaigua, who met his tragic death at the hands of an inmate of the asylum over which he was Superintendent.

Obituary of Dr. Gurdon Buck, of New York, was presented by DR. FRED. A. CASTLE, of New York; also obituary of Dr. Henry S. West, who died in Turkey, in Asia, presented by DR. BURR, of Broome County.

All these communications were referred to the Committee of Publication.

The credentials of DR. J. H. POOLEY, as delegate from the Ohio State Medical Society, were presented and referred.

DR. IRA A. RUSSELL, delegate from Massachusetts State Medical Society, was introduced and made an appropriate response.

MEMBERS BY INVITATION.

DR. BAILEY further reported the names of the following gentlemen as members by invitation: Drs. T. K. Perry, C. S. Merrill, Albany; R. H. Sabin, West Troy; G. T. Slevin, Maurice J. Lewi, D. V. O'Leary, E. Van Slyke, and H. March, Albany; H. C. Monroe, Schuylerville; Jas. P. Boyd, Jr., Albany; Fred. D. Lente, Florida; G. L. Ullman, E. B. Tefft, Albany; D McF. Governeur, St. Lawrence County; H. Ogden, of Walton; H. G. Du Bois, Camden; W. S. Cooper, C. E. Nichols, Troy; S. Peters, Cohoes; C. Sawyer, A. Pollard, Essex County; M. Case, Oneonta; L. N. Goff, Cazenovia; Z. Rousseau, Troy; D. H. Goodwillie, New York; Lewis Balch, Albany; J. T. Wheeler, Chatham; A. Ten Eyck, Blooming Grove; Mary Du Bois, Albany; S. Moak, Slingerland; A. Fowler, Wm. Hailes, Wm. H. Murray, Albany.

THE PRESIDENT made a report as delegete to the American Medical Association, and also report as Chairman of the Committee on Pharmacology, accompanied by a resolution relating to the National Medical Museum, all of which was referred to the Committee on Publication.

DR. SQUIBB reported that the American Medical Association had decided that it would not take the subject of the Pharmacopœia into consideration at all, even so far as to hear what might be said upon the subject by its own order, or to make a committee upon it. If the State Medical Societies concurred in that action of their representative body, or failed to protest against or counteract it, they must of course accept the result, whether it be good or bad, upon the materia medica.

Dr. Squibb recommended the subject to the thoughtful attention of every medical man in this State, where the Pharmacopœia practically originated.

NATIONAL MEDICAL MUSEUM AND LIBRARY.

Resolved, That the members of the Medical Society of the State of New York should individually endeavor to explain to the members of Congress of their respective localities the nature and importance of this work, to the end that the necessary appropriation for it may not fail through want of knowledge of the character of the work, or mistaken ideas of economy.

REPORT ON BY-LAWS.

DR. WEY, of Elmira, Chairman of the committee, reported the following resolution:

Resolved, That the Secretaries of the several county medical societies be and are hereby required to notify the Chairman of the Committee on By-Laws of the Medical Society of the State of New York, within sixty days of the passage hereof, of the approval or rejection of the by-laws, rules, and regulations by the said county medical society, including the date of such approval or rejection, with the name of the officer causing the same to be made; and whether any and what modification or amendments forming such official action have been had in connection with the same.

The object was to obtain concert of action among the medical societies throughout the State.

The report of the committee was adopted.

STATUS OF PERMANENT MEMBERSHIP.

DR. DIMOND, of Cayuga, submitted a communication making inquiry regarding the status of a permanent member of the Society after having been expelled from his county society for non-payment of dues.

Referred to Committee on Ethics.

An obituary notice of Dr. Francis Burdick was submitted by DR. THOMPSON BENTON, and referred to Committee on Publication.

CHANGE OF TIME OF HOLDING ANNUAL MEETING.

After considerable discussion, it was resolved to change the time of holding the annual meeting of the Society to the THIRD TUESDAY OF JANUARY.

DR. CORLISS remarked that he should want a "shingle on the side of his head" to tell him when the State Medical Society held its annual meeting.

DR. JEWETT, from the

COMMITTEE ON THE PRESIDENT'S ADDRESS,

reported that they fully agreed with the President with reference to selecting the best presiding officer. That he should be responsible for the work of the meeting over which he presided, it was thought that the present system was sufficiently simple and satisfactory. With reference to the discontinuance of the annual address, the committee failed to agree with the President. It was thought not to be wise to increase the expenses of the Society by increasing the pay of the Secretary and Treasurer. That the Transactions should have a more complete index was thought advisable. The committee did not recommend the increase of delegation. They believed that the by-laws regulated the formation of certain committees for permanent members, but thought that the Nominating Committee could with propriety be composed of delegates who had served as such the year previous. With reference to the expenses of the Transactions, it was believed that was a matter of business properly belonging to the Committee of Publication.

The report was accepted.

DR. KENDALL, of Onondaga, moved that the report be laid upon the table. Carried.

The paper by Dr. J. F. Miner, of Buffalo, on

THE FEASIBILITY OF REMOVAL OF THE THYROID GLAND

was referred to the Committee of Publication, and placed at the author's disposal. This reference was made in view of the fact that Dr. Miner was unavoidably absent.

PULMONIC FEVER—GROUNDS FOR CONSIDERING ACUTE PNEUMONIA AN ESSENTIAL FEVER, AND NOT PURELY A LOCAL INFLAMMATION.

Dr. Austin Flint, of New York, read a paper upon the above subject, which will be published in a subsequent number of The Record.

The paper gave rise to some discussion, and was referred to the Committee of Publication.

Dr. Putnam-Jacobi, of New York, then read a paper entitled

TWO CASES OF CONVULSIVE DISEASE WITHOUT CONVULSION.

Both were cases of epileptoid disease—the first a reflex epileptoid seizure—symptomatic of disordered innervation of the solar plexus, analogous to the disorder which ordinarily results in gastralgia; the second a case of psycho-epilepsy, in a family where epilepsy already existed, and hence probably idiopathic. In both cases convulsions were absent, and this fact was held to prove that the vaso-motor neurosis did not affect the medulla. In the first case the attack, which was repeated every ten or fifteen minutes, was ushered in by a painful sensation at the epigastrium, immediately followed by pallor and loss of consciousness, during which of course the pain was abolished. But the morbid impression seemed to persist, and to determine automatic clawing movements of the hands, as if for the purpose of clutching something out. At the same time the child cried incessantly, "Take it out! take it out!" It was argued that these phenomena did not constitute an aura, but indicated a peripheric irritation, which, transmitted by the splanchnic nerves to the vaso-motor nerves of the brain, caused vascular spasms and limited anuria at the cortex—probably localized over the cortical centres for speech and for prehensile movements, which are said to be in close proximity to one another. The abolition of consciousness was explained by increased pressure from collateral rise of tension in the blood-vessels adjoining the anuriated part. In the second case existed only a diminution of intelligence—an "attack of stupidity," or rather an increased resistance to the transmission of mental impressions. This state lasted generally about twenty-four hours. It was interpreted as depending on a paralytic hyperæmia, seated, not in the gray matter of the convolutions, but in their communicating fibres.

The paper was referred to the Committee of Publication.

The report of the Special Committee—Dr. E. M. Moore, of Rochester, Chairman—upon the subject of Establishing a Committee to Determine the Qualifications of Students in Medical Colleges, who are about to enter the Profession, the service of such committee to be tendered to such colleges as may desire them, was postponed until the next annual session, on account of the unavoidable absence of the Chairman of the committee.

The Society then adjourned to meet at 3 P.M.

Second Day.—Afternoon Session.

The Society was called to order at 3 P.M. by the President.

The first paper read was by Dr. Edward H. Parker, of Poughkeepsie, on

HEREDITY AS A FACTOR IN PAUPERISM AND CRIME.

Dr. Parker took the ground that there was no evidence to establish the doctrine of hereditary tendency to pauperism and crime.

The paper gave rise to some discussion, which was participated in by Drs. Wey, Dimond, and Kneeland, and then referred to the Committee of Publication.

Dr. Kendall, of Onondaga, called up the report of the Committee on the President's Address, and moved to recommit that portion relating to the formation of the Nominating Committee, with instructions to amend as follows:

Resolved, That sec. 11 of chap. 3 of the by-laws be amended so as to read as follows:

At the annual meeting, immediately after the adjournment of the first session, the permanent members and delegates present from each Senatorial District of 1836 shall be constituted a committee, which shall elect one of their own number and from their own district, who shall be a member of the Nominating Committee, and the eight persons thus elected shall constitute a Committee of Nomination.

The motion was carried.

Dr. Kneeland, of Onondaga, moved to recommit that portion of the report relating to the President's annual address, with instructions to report in favor of adopting the recommendation offered by Dr. Squibb in his inaugural—namely, to discharge the President from the delivery of an annual address. The motion was lost.

The report was then adopted, with the exception of the p rtion recommitted.

TREASURER'S REPORT—NON-PAYMENT OF DUES.

The Committee on the Treasurer's Report, after referring to the correctness of the report of that officer, reported that a permanent member shall not be permitted to register until his dues shall have been paid. In regard to county societies and colleges it was recommended that their delegates should not be permitted to register until the dues against the organizations which they represented shall have been paid. The report was adopted.

STONES IN THE BLADDER.

Dr. J. W. S. Gouley, of New York, read a paper upon the above subject, which was referred to the Committee of Publication. An abstract of the paper will appear in a subsequent number of The Record.

NITRITE OF AMYL IN PERTUSSIS.

Dr. George Bayles, of New York, read a paper upon the above subject, in which he considered the beneficial influence arising from the use of amyl nitrite in the treatment of whooping-cough, and reported several cases. The drug was administered in from one to three minim doses and repeated every two, three, or four hours, according to age of child and urgency of symptoms. No antagonism existed between the remedy and quinine. Quinine was administered in most of Dr. Bayles's cases prior to the use of amyl. It was regarded as a safe remedy when used properly, and one of more than ordinary value in the treatment of the affections to which special reference was made. It was regarded as specially adapted to the treatment of spasmodic affections and for breaking up the habit of such diseases.

THE COLD BATH IN SCARLATINA.

Dr. C. H. Giberson, of Brooklyn, read clinica

notes showing the favorable results attending the use of cold baths in the treatment of scarlet fever. The report presented evidence of careful preparation. We should not permit temperature to rise above 102° F., should use water from 100° to 70° F., and continue the bath just long enough to reduce temperature to 100° F.

The paper was discussed by Drs. Putnam-Jacobi, Douglas, and Kneeland, and referred to the Committee on Publication.

JABORANDI.

Dr. A. Hutchins read a paper upon Jaborandi, in which he spoke of the remedy as one of value for the relief of symptoms common to many diseases. The effect of the drug was especially diaphoretic.

The paper was properly referred.

VAGINAL INJECTIONS.

Dr. Frank P. Foster, of New York, read a portion of a paper upon the above subject. It was referred to the Committee of Publication.

SOME OF THE MORBID CONDITIONS OF THE PROSTATE GLAND.

Dr. Frederick Hyde, of Cortland, gave an abstract of his paper upon the subject, and urged the early use of the catheter, and the retention of the instrument rather than to remove and reinsert; it might be worn three or four days without removal. The paper was referred to the Committee of Publication.

The Committee on the President's Address reported in regard to the portion of their former report which was recommitted, that they could not agree, and submitted the question to the action of the Society.

The report was laid upon the table.

The Society then adjourned to meet at 8 P.M.

SECOND DAY.—EVENING SESSION.

The Society was called to order at 8 P.M., by the President.

The first order of business was the

REPORT OF THE COMMITTEE ON HYGIENE.

Dr. A. N. Bell, of Brooklyn, Chairman, reported in abstract. Reports had been received from the counties of New York, Westchester, Kings, and Putnam. Special reports had been received from Dr. Wey, of Elmira, and Dr. Stoddard, of Rochester.

PSEUDO-MEMBRANOUS LARYNGITIS — TRACHEOTOMY — RELAPSE AND RECOVERY.

Dr. Norman L. Snow, of Albany, related the history of a case, the outlines of which are embraced in the title. Durham's tracheotomy tube was recommended. The patient was fifteen months of age.

TAR FUMIGATION IN GANGRENOUS SORES.

The paper was submitted by Dr. Lewis Post, of Lodi, Seneca Co., and was read by the President.

The sore treated by Dr. Post was located upon one of the lower extremities; it resisted all ordinary remedies, but finally yielded to fumigations with tar. The hagedenic appearance was changed entirely within one week. The fumigation was continued for only about three minutes at each sitting, and repeated according to circumstances. Dr. Post thought it possible that he had inhaled the toxic miasm from those sores, and that that was the cause of the sickness, a laryngeal trouble, from which he had suffered since the treatment of his patient.

HYDROCHLORATE OF AMMONIA—AMMONIÆ MURIAS.

Dr. C. G. Pomeroy, of Wayne, gave an interesting *résumé* of the history of this article, and followed with a reference to its special value in the treatment of affections of the mucous membrane of the air-passages, particularly when accompanied with the formation of thick tenacious secretion

Ordinary inflammation of the throat and lungs, and catarrhal croup, were uniformly treated by the use of the remedy. Its use in the treatment of swollen and ulcerated lymphatic glands, and also psoriasis and eczema, facial neuralgia, and several other affections, received favorable mention.

The paper was referred to the Commitee on Publication.

CERTAIN POINTS RELATING TO THE NATURE AND TREATMENT OF LUPUS.

Dr. H. G. Piffard, of New York, read a paper upon the above subject, which will appear in a subsequent number of The Record.

On motion, made by Dr. Kendall, the report of the Committee on the President's Address was taken from the table, and, after considerable discussion, the proposed amendment to the by-laws adopted by a vote of 45 to 16.

The Nominating Committee at the next Annual Meetings will not be appointed by the President, unless further action shall be taken by the Society.

The paper on

HEREDITARY TRANSMISSION OF DISEASE,

by Dr. Ira F. Hartt, of Elmira, was submitted and referred to the Committee of Publication.

The Society then adjourned to meet at 9.30 A.M., June 21.

THURSDAY, JUNE 21ST.—THIRD DAY—MORNING SESSION.

The Society was called to order at 9.30 A.M. by the President.

Prayer was offered by Rev. Dr. McBlaney. Minutes of previous day read and approved.

Dr. Smith, Chairman of the

COMMITTEE ON CREDENTIALS,

reported that 200 names had been registered.

Dr. Wey, Chairman of

COMMITTEE ON BY-LAWS,

reported that the fact of a permanent member of the State Medical Society having been expelled from a county medical society for

NON-PAYMENT OF DUES

did not affect his standing in the State Medical Society, until such Society had been officially notified of such delinquency. Adopted.

The Chairman further reported that suspension or withdrawal from a county medical society was fatal to an admission to the State Medical Society, but that it did not disturb the membership of a permanent member. Adopted.

Dr. Burr, Chairman of the

BUSINESS COMMITTEE,

announced the reception of a communication from Dr. A. O. Kellogg, of Dutchess County, which was referred to the Committee on Publication.

Dr. B. F. Sherman, Censor to the University at Syracuse, made a report which took a like reference.

REPORT OF THE COMMITTEE ON NOMINATIONS.

Dr. A. Hutchins, of Brooklyn, Secretary of the committee, reported as follows:

For President—Dr. J. Foster Jenkins, of Yonkers.

For Vice-President—Dr. Augustus L. Saunders, of Brookfield.

For Secretary—Dr. Wm. Manlius Smith, of Manlius.

For Treasurer—Dr. Chas. H. Porter, of Albany.

For Censors—Southern District, Drs. E. R. Peaslee, New York; E. H. Parker, Poughkeepsie; E. Eliot, New York. Eastern District, Drs. A. B. Whiton, Troy; James L. Babcock, Albany; J. I. Shaver, Little Falls. Middle District, Drs. M. M. Bagg, Utica; G. W. Cooke, Otego; C. G. Bacon, Fulton. Western District, Drs. C. C. Wyckoff, Buffalo; H. Jewett, Canandaigua; C. Green, Homer.

Committee on Correspondence—1st District, Drs. T. Addis Emmet, New York; 2d, W. I. Townsend, Goshen; 3d, W. S. Seymour, Troy; 4th, T. B. Reynolds, Saratoga; 5th, S. G. Wolcott, Utica; 6th, J. G. Orton, Binghamton; 7th, A. B. Wilbur, Syracuse; 8th, C. E. Rider, Rochester.

Permanent Members—Drs. J. S. Prout, B. A. Segur, Kings; A. E. M. Purdy, Wm. Chamberlain, New York; T. Hammond, Dutchess; J. F. Chapman, Westchester; H. March, Chas. A. Robertson, Albany; J. M. Rose, Herkimer; A. Pollard, Essex; W. Taylor, Madison; N. J. Barnett, Oswego; L. J. Ames, Livingston; J. Wiley, Steuben; A. F. Sheldon, Wayne; A. R. Otis, Yates; G. Swinburne, Monroe; J. C. Green, Erie.

Honorary Members—Drs. Samuel C. Busey, of Washington, D. C.; W. A. F. Brown, of Dumfries, Scotland; S. Weir Mitchell, of Philadelphia, Pa.; Wm S. Hopkins, of Vergennes, Vt.; Louis Wecker, of Paris, France.

Eligible to Honorary Membership—Drs. Clarkson T. Collins, of Great Barrington, Mass.; Joseph B. Brown, U. S. A.

DELEGATES.

To the Pennsylvania State Medical Society—Drs. S. Shove, of Westchester; Wm. C. Wey, of Chemung.

To the Massachusetts State Medical Society—Drs. P. R. H. Sawyer, Westchester; J. L. Banks and H. S. Farnham, New York; J. Bates, Columbia; J. F. Miller, Erie.

To the Connecticut State Medical Society—Drs. A. Hutchins, Kings; L. Cross, Schoharie; G. S. Wolcott, Oneida.

To the New Jersey State Medical Society—Drs. J. C. Hutchinson, Kings; H. D. Noyes, New York; R. H. Ward, Rensselaer.

To the New Hampshire State Medical Society—Drs. W. Govan, Rockland; L. D. Bulkley, New York.

To the Vermont State Medical Society—Dr. E. F. Edgerly, Essex.

To the Rhode Island State Medical Society—Dr. C. M. Allin, New York.

To the Canadian Medical Society—Drs. E. D. Ferguson, Clinton; B. F. Sherman, St. Lawrence; H. G. P. Spencer, Jefferson.

To the Iowa State Medical Society—Dr. J. Kneeland, Onondaga.

Censor of the Syracuse University—Dr. Wm. H. Bailey, of Albany.

COMMITTEES.

On Prize Essay—Drs. A. W. Dean, Monroe; J. F. Miner, Erie; W. S. Ely, Monroe.

On By-laws—Drs. W. C. Wey, Chemung; W. M. Smith, Onondaga; Wm. H. Bailey, Albany.

On Publication—Drs. R. M. Wyckoff and E. R. Squibb, Kings; W. M. Smith, Onondaga; Chas. H. Porter, Albany.

Hygiene—Drs. E. V. Stoddard, Monroe; C. R. Agnew, New York; J. G. Orton, Broome; J. C. Hutchinson, Rensselaer; E. M. Lyon, Clinton; E. Hutchinson, Oneida; H. Jewett, Ontario.

On motion, the Secretary deposited a ballot in the affirmative for President, Vice-President, Secretary, and Treasurer, who were duly declared elected.

The remainder of the report was adopted by a *viva voce* vote.

The delegates to the American Medical Association are to be elected at the annual meeting in January, 1878.

Dr. Wey introduced the following resolution:

Resolved, That the President be directed to appoint a member to codify the by-laws of this Society from 1849, the date of the last publication of the same, to and including the present session, with authority to print one thousand copies.

Adopted.

The President appointed Dr. A. Hutchins, of Kings County, as such committee.

COMMITTEE ON PRIZE ESSAY.

The Chairman of the committee, through the President, reported that no essay had been presented, and that there were no funds with which to pay a prize.

On motion made by Dr. Burr, the report was accepted, and the President remarked that it seemed hardly worth while to adopt it.

PRIZE ESSAY FOR LAST YEAR.

Considerable discussion ensued on a proposition to pay Dr. A. Hutchins the sum of $100 for his essay presented last year, and it was finally resolved to pay the amount from the treasury of the Society.

At this point in the business transactions,

Dr. Hiram Corliss arose, and was granted the privilege of making a few remarks. After alluding to the change of time for holding the annual meeting, in a voice trembling with emotion, he bade the Society an everlasting farewell. The inclemency of the winter season would preclude all possibility of his attendance upon another annual meeting.

REPORT OF THE COMMITTEE OF ARRANGEMENTS.

Dr. Wm. H. Bailey, Chairman, recommended the election of the following gentlemen as

MEMBERS BY INVITATION.

Alexander Ennis, Pattersonville; E. W. Carmichael, Sand Lake; Robt. J. Bullock, Albany; Nicholas H. Freeland, Tarrytown; G. P. Salmon, Hudson; O. D. Ball, Albany; J. Denham Palmer, Fernandina, Florida; P. C. Neher, Nassau; A. T. Van Vranken, West Troy; J. W. Moore, Cohoes; R. H. Starkweather, Albany; G. H. Armsby, Albany; J. C. Healey, Albany; Willis G. Tucker, Albany; R. D. Traver, Troy; S. A. Russell, Albany; Wallace Clark, Utica.

PAYMENT OF OLD DEBTS.

On motion, it was resolved to pay a bill which had been sent to Dr. J. W. S. Gouley, of New York, for extra printing, and also to refund to Dr. Little, of New York, the amount which he had paid for extra printing under similar circumstances.

The *extra* related to illustrations accompanying the papers formerly presented by these gentlemen, and printed in the Transactions.

There being no further miscellaneous business, the Society returned to the hearing of papers.

HÆMOPHILIA.

Dr. Jas. C. Hutchinson, of Troy, read a brief paper upon this subject, using the term as one synonymous with hemorrhagic diathesis.

It was discussed by Dr. Sherman, and referred to Committee of Publication.

Telegram from A. Jacobi, of New York, excusing his absence, and expecting to be able to be present and do his duty at the next annual meeting.

EXPERIENCE IN SHOULDER AND ARM PRESENTATIONS.

Dr. Israel Parsons, of Marcellus, read a paper upon the subject announced, and reported cases. The Doctor's method consisted essentially in pushing the presenting part up, and thereby changing the case into one of vertex presentation.

The paper was discussed by Drs. W. Manlius Smith, Lyman, and Kneeland, and referred to the Committee of Publication.

CASES OF WOUNDS OF THE SYNOVIAL MEMBRANE OF THE KNEE-JOINT SUCCESSFULLY TREATED WITHOUT ANTISEPTIC APPLICATION.

Dr. George Burr, of Binghamton, gave the history of a case in which a floating cartilage was removed from the joint mentioned. The limb was dressed, placed in a box, and kept perfectly quiet, and the patient recovered without unfavorable symptoms, and without check towards restorative processes. If this and another case of like character had been treated by the method of Lister, such favorable recovery would probably have been attributed to the antiseptic method.

The paper was discussed by Dr. Hutchinson, of Brooklyn, who was inclined to regard Dr. Burr's cases as exceptional, and not as evidence against the value of the antiseptic method of Lister.

The paper was referred to the Committee of Publication.

ACTION OF MERCURY.

Dr. H. N. Eastman, of Owego, was emboldened to read a paper upon the action of a familiar drug, and believed that it exercised its influence in one of three ways:

1. By stimulating the capillary vessels.
2. By eliminating products into the intestinal canal; and
3. By working certain changes in the blood.

The Doctor was not prepared to accept the view that mercury did not stimulate the liver.

The paper was referred without discussion.

OPIUM INEBRIETY AND THE HYPODERMIC SYRINGE.

Dr. S. F. McFarland, of Oxford, entered his protest against the indiscriminate use of the hypodermic syringe in administering opium, and especially against placing the instrument in the hands of the patient, unless under the most peculiar and urgent circumstances.

The paper was discussed by Drs. Parsons, Kendall, and Beckett, and referred to the Committee on Publication.

The following papers were read by title and referred:

On Lumbago, by Dr. Peters, of Cohoes.

Fatty Embolism, by Dr. Wm. H. Bailey, of Albany.

Fracture of the Base of the Skull, by P. R. H. Sawyer, of Bedford.

Typhoid Infection of Drinking Water, by E. V. Stoddard, of Rochester.

Dr. A. Hutchins, of Kings, addressing the Vice-President, moved that a vote of thanks be tendered to the President for the dignity, patience, and enthusiasm with which he had presided over the deliberations of the Society. Unanimously carried.

Dr. Squibb accepted the thanks, and remarked that it gave him pleasure to transfer the larger portion of them to the committees and officers, whom he was sure were embraced within the intentions of the motion.

A motion to adjourn being made and carried, the President declared the seventy-first annual meeting of the Medical Society of the State of New York adjourned to meet in Albany at 11 o'clock on the third Tuesday of January, 1878.

Correspondence.

REOPENING OF THE NEW YORK HOSPITAL.

By GOUVERNEUR M. SMITH, M.D.,

ONE OF THE ATTENDING PHYSICIANS.

The Medical Record of March 24, 1877, announced the reopening of the New York Hospital on March 16th, in its new building extending from Fifteenth Street to Sixteenth Street, a few feet west of Fifth Avenue. The site of the hospital, though near the fashionable thoroughfare of the metropolis, and adjoining the residences of the opulent, is doubtless destined shortly to be the centre of vast commercial interests, judging from the changes already apparent in the adjacent Union Square, and from the large amount of capital expended in the palatial warehouses of the neighborhood.

The hospital will consequently provide for the accidents incident to trade and to factories in its section of the city, while at the same time providing for the lower part of the town in its branch establishment, near its former locality.

The institution is popularly designated as the "Old New York Hospital." Ten decades of years is not a long period of time, but our Republic has only just celebrated its centennial birth-year, and is perhaps justified in regarding as old the institutions which are contemporaneous with its history.

Early records inform us that several benevolent people of this island, in 1770, subscribed towards the establishment of the hospital, and that Drs. John Jones, Samuel Bard, and Peter Middleton presented a petition to Lieut.-Gov. Colden for a charter of incorporation. In 1771 the charter was granted by the Earl of Dunsmore, Governor and Commander-in-Chief of the Province. It should not be forgotten, in this connection, that while the mother country, about this time, was sadly misbehaving toward her American colonies, that many philanthropic persons in London and Great Britain contributed to the funds of the hospital, chiefly through the exertions of two distinguished English physicians, viz., Dr. John Fothergill and Sir William Duncan.

It is highly interesting to read the biographical sketches of those humane and skilful physicians and patriotic citizens, Drs. Jones, Bard, and Middleton. Dr. Jones despised titles and judged mankind from their inherent qualities. He was so democratic in his feelings, indeed, that he thereby incurred at one time the displeasure of his professional brethren.

The subjoined incident concerning him, as illustrating this fact, has been recorded in his life: "At an early date of Dr. Jones's settlement in New York, some of the physicians entered into a resolution to distinguish themselves from the rest of their fellow-citizens by a particular mode of wearing their hair; and among the rest it was proposed to Dr. Jones." Dr. J. would not enter into any such agreement, declaring it

to be beneath the dignity of the medical profession to attract attention and impose upon the weakness and credulity of others. "While the rest of the practitioners, therefore, were seen strutting about in their new-fashioned bob, Dr. Jones could not be distinguished from any well-bred gentleman of another profession. It might be naturally supposed that the persons who were weak enough to enter into the resolution would likewise be capable of the low passion of envy, and seek for a proper occasion of revenge upon those who should dissent. This was actually the case in the present instance, for the consequence of Dr. Jones's refusal to adopt the plan was an agreement not to consult with him. This resolution, however, was of but little avail, for one of the associates, on expressing this determination to a respectable citizen in whose sick-room they happened to meet, was, to his great mortification, unexpectedly dismissed, and Dr. Jones was retained. . . . So effectually did the disclosure of the scene operate, and so general was the ridicule which followed, that the object of the association was entirely defeated, and the members were under the necessity of wearing their hair like the rest of their fellow-citizens."

Dr. Bard likewise was a man of sterling character. The following quotation from a letter addressed to his son, just completing his legal studies, illustrates his qualities: "Be open, my dear boy, to conviction; but never suffer yourself to be led in opposition to your own judgment, unless in the case of friends whose age and experience qualify, and whose relationship authorizes them to give you advice. Never become the hanger-on of a party, nor suffer yourself to be carried beyond the bounds of sober judgment when measures are the subject of dispute; nor of candor and moderation when men are; but on all occasions endeavor to think for yourself and support independence both in your conduct and opinions."

It was men of such description who helped to mould the hospital, and who imparted an independence, a tone, and a dignity to the medical profession of their time—qualities still observed among the estimable physicians of the present day. The successful and indeed brilliant history of the hospital is so well known that it is unnecessary to here review it. Suffice it to say, that from its incipiency its governors have been gentlemen who, from their commercial enterprise, have largely contributed toward giving New York its metropolitan character, who have been zealous in promoting the interests of the hospital, and who from their personal virtues have gained both private and public esteem. The medical staff has always been pre-eminent, and no other institution of its kind in the world can exhibit more beautiful examples of the unison of integrity, of humanity, and of skill, than has been shown in the lives of the physicians and surgeons of the hospital.

In 1869, owing to financial reasons, the institution temporarily suspended its general operations. Though rich in landed estate the property was unproductive of income. This difficulty has been partially obviated, and with the means now at the command of the governors, the spacious and elegantly appointed hospital recently erected, it is believed, can be efficiently conducted. As its revenues increase, as they necessarily must do, the society will doubtless be enabled to carry on benevolent work in a manner eclipsing its former capabilities.

On the evening of March 16, 1877, after the address by Dr. William H. Van Buren, at Chickering Hall, the hospital was formally opened and inspected by a large number of invited guests. On the following day the building was ready for occupancy. The Committee of the Board of Governors, viz., Messrs. James W. Beekman, Jackson S. Schultz, William B. Hoffman, Sheppard Gandy, D. Colden Murray, and William H. Macy, were on the alert, giving heed to every necessary detail to insure efficient operation. Dr. Francis M. Weld, medical superintendent, was actively engaged in co-ordinating the various departments of the institution. Dr. Charles H. Knight, resident physician and surgeon, with his two assistants, Drs. Holt C. Wilson and S. S. Kahn, were ready to attend to their respective and important duties to the sick and injured.

On March 17th the first surgical case was received, and on March 19th the first medical case was admitted. The grand machinery of a noble charity again began to move—no rest before it in summer or in winter, by night or by day, on holy day or holiday. Constant labor, eternal vigil, the prices of success.

In the arrangement of the Medical Board for services during the ensuing year the first surgical service, extending from March 17th to June 1st, devolved upon Dr. Charles M. Allin, and the first medical service, extending over the same period, devolved upon myself. During this term 180 patients were admitted to the hospital, 78 of these being medical and 102 being surgical.

Already the wards and operating theatre have become familiar with sights of human suffering and echoed expressions of anguish. Already disease has been relieved by means, now ordinary, which would have astonished our medical forefathers, and appliances have been employed for the relief of injuries which would have amazed the old and veteran surgeons. Already within the walls of the hospital the first inspiration of life has been breathed and the last expiration has been taken. To those suffering with mortal disorders the kindly word has been spoken, the cordial food, draught, and medicine have been administered, and wishes have been gratified by thoughtful and efficient attendants. Thus have they enjoyed a peaceful euthanasia, which for persons in their circumstances of life could scarcely have been hoped for, excepting in some sister benevolent institution.

The hospital, as is seen, has fairly entered upon its benign work. From its metropolitan character and central location it will doubtless attract a large proportion of cases of the greatest gravity. Judging alike from the class of patients admitted to the Chambers Street branch, and from a number of the cases brought to the hospital, it would seem probable that one of the most important provisions of the infirmary will be for maladies and injuries of severe forms. To say nothing of the accidents constantly liable to occur, there are always in the community a number of persons predisposed to apoplexy, many suffering with organic diseases, especially of the heart and blood-vessels, of the lungs, kidneys, etc., who, though able to attend to certain duties of life, are liable at any moment to be overcome and to be carried for immediate succor to a hospital.

Humanity demands of our civil authorities that the city shall be districted in such a manner that cases of severe accidents and sudden disease shall be sent to the nearest desirable hospital, unless friends of such patients can provide readily accessible private accommodation for them. The hospital is connected by telegraph with police headquarters, and is provided with an ambulance, ready at all hours, for immediate use.

The attention of the medical profession is specially called to the extensive library of the hospital, which

is open daily for consultation without expense to the visitor. The governors make a liberal annual appropriation for its increase, and here those engaged in studying the various departments of medical science can, by the aid of the accomplished librarian, Dr. John L. Vandervoort, find a rich field of research.

The pathological museum, under the care of Dr. Christopher M. Bell, is worthy of particular notice. Under the management of this cultured pathologist and of his predecessor, the late Dr. Robert Ray, Jr., the museum has become attractive and instructive, and, indeed, is unique in the beauty of its appearance.

For about three-quarters of a century the New York Hospital was an institution *sui generis* in this city. With the growth of the metropolis kindred institutions sprang into existence, and though several of them are under sectarian management, they are carried on upon catholic principles, neither the nativity nor the creed of a sufferer being a hindrance to admission to their wards. Such infirmaries are the outgrowth of an advanced Christian civilization. It is more than probable that many a forlorn patient, in finding comfort within their welcome walls, has been led for the first time to chant those old words of Stephen of St. Sabas:

> "Art thou weary? art thou languid?
> Art thou sore distrest?
> 'Come to me,' saith One, 'and coming,
> Be at rest!'"

Never before in the history of our country have the managers of our numerous and diverse benevolent institutions had such a difficult task before them as at the present moment. The benevolence of the American people has been so generous, nay, so prodigal, that it has fostered pauperism. A large number of able-bodied adult paupers are supported by communities, and children are trained by these paupers in the school of beggary. An army of "tramps" secure food, raiment, and lodging, and when sick or injured receive a similar kind care to that paid by the Samaritan to the man who fell among thieves as he went down from Jerusalem to Jericho. At the present day the everlasting cry of "backsheesh" disturbs the traveller in lands around which cluster sacred memories. The proud old Italian cities swarm with mendicants —the densely-populated countries of the old world are thronged with beggars.

In our land there is no cause for general indigence. Our immense territory cannot be overcrowded for centuries, and its agricultural and mineral resources promise the laborer full reward. The government offers liberal inducements to settlers on its domain, while railroad companies offer for sale, at mere nominal rates, vast regions of fertile soil upon their borders. Patriotic citizens should unite in eradicating beggary from our midst before it assumes more gigantic and irremediable proportions. The demand of vagrants for food must be met by the response: "In the sweat of thy face shalt thou eat bread."

Sickness and disaster, however, must often induce poverty among deserving persons. The poor will always be with us; such deserve pity, such will gladly be aided, and, indeed, daily befriended. Of all our charitable institutions, the hospitals are least likely to be abused. Let the benevolent rejoice at the reopening of the old New York Hospital, and wish it success as well as its kindred infirmaries throughout the city and throughout the land.

Albany Medical College.—The Faculty of the Albany Medical College have bought the institution from that city.

THE CONNECTION BETWEEN CHOREA AND ERRORS OF REFRACTION OF THE EYE.

To the Editor of The Medical Record.

There appears in The Medical Record of June 2d, an address with the above title, in which the author discusses the proposition announced by myself that "chorea is a functional disturbance of the nervous system which may give rise to organic lesions, and which arises from irritation dependent upon anomalous refraction of the eye, and in a large proportion of cases upon hypermetropia."

The author cites thirty-one cases of chorea observed by himself, and in which, he informs his readers, he has carefully tested the refractive condition of the eyes.

He lays down certain rules for procedure in such cases which are certainly good, indeed, indispensable to a correct understanding of the relations discussed.

As the result of these examinations we are informed that of the thirty-one cases, sixteen have hypermetropia, and fifteen are emmetropic; that is, free from refractive errors.

If the question of the relation of the nervous trouble to the refractive conditions of the eye is worth investigating, the method of proving by accurate examinations of cases is surely the true one, for it matters little how much we may discuss the general principles involved, we must, after all, resort to the ultimate test of facts, and from this test there can be no appeal. In this view of the case the facts presented in this paper would certainly not appear to sustain the proposition which I have made; but inasmuch as I have supported that proposition by forty-one cases published in connection with it, there would seem to be a conflict of facts or a want of thorough accuracy on the part of one of the observers. For it could scarcely happen, if both series of tests have been made with an equal degree of precision, that I should have found forty-two successive cases in which important refractive errors were coincident with chorea, while Dr. Bull, in similar circumstances, finds but sixteen such coincidences among thirty-one cases. Hence one or the other of these two series of assumed facts must be deemed unreliable.

In my own series of cases I have been careful, by giving the initials of patients and the names of physicians through whose kindness I was enabled to examine them, to so identify many of them as to enable any one interested to revise my work. In other cases, I shall be glad to afford my medical friends any assistance within my power in making such revision.

Let us now inquire whether the cases reported by Dr. Bull will bear inspection. It will be conceded that it is extremely difficult, not to say unpleasant, to question facts presented by a respectable authority, and unless there is intrinsic evidence of a want of scientific accuracy in the report of cases, there would seem to be no ground for a public dissent from the assumed facts.

Is there, then, in the cases reported by the author of the paper intrinsic evidence of a disregard of scientific accuracy in his report of these cases? If so, and if such disregard can be shown in a considerable number of instances, we are at liberty to regard his whole series of assumed facts as unreliable.

Dr. Bull reports the following:

"Case XXVII.—Boy, æt. three and a half; . . . . . After atropia, *emmetropia*, though examination somewhat difficult, owing to restlessness."

The age of this infant of course precludes the idea

of any examination having been made by trial-glasses or optometer, and the refraction must have been determined by the ophthalmoscope. Does Dr. Bull claim that by the flash of his mirror he is able to declare the absence of any refractive error in this restless babe? This would indeed be a remarkable achievement. It is true that ophthalmologists are accustomed in their daily practice to make by the ophthalmoscope approximate determinations of refractive conditions, especially in cases of gross refractive errors, and it is true also that in the hands of the most expert, and under the most favorable circumstances conceivable, even low degrees of astigmatism may be determined by this method, but it will be hard for Dr. Bull to convince ophthalmologists of experience that he has or can determine emmetropia in this infant.

But this is not the only case in which the author claims to have attained results which, in the nature of things, must be extremely doubtful. In the examination of at least twelve eyes reported in this paper, the circumstances of the cases render it extremely improbable, not to say impossible, for reasons above stated, that he should have determined emmetropia, as he claims to have done. Nor are these the only cases reported, upon which grave suspicion as to scientific accuracy must rest; but surely these are sufficient to render it certain that in this series of cases the methods of observation have been extremely loose and unreliable.

There is, however, one portion of the paper in question which merits attention. In the "Martin" family are eight living children; of these four are stated to be hypermetropic, and four emmetropic. Is it not a striking fact that of the four hypermetrops *three* have chorea, while no chorea is found among the four emmetrops?

We are told that in five of the cases observed glasses for the correction of the refractive errors were prescribed and worn without benefit, so far as the nervous trouble was concerned. I have no means of accounting for the failure in these cases; but against these failures allow me to place the following success:

E. P., aged fourteen, had her first attack of chorea, a very severe one, in the autumn of 1873; no apparent cause. The more violent symptoms subsided after two months, and the disease assumed a chronic form. In May following she had obstinate interstitial keratitis for which, during two months, she was treated by a distinguished ophthalmologist, who observed her distressing nervous condition, and also the fact that she had astigmatism; but did not trace any connection between the neurosis and the refractive error. Under the use of atropia, iron, and cod-liver oil, the corneal trouble disappeared, but after a few months the neurosis manifested itself more violently than ever. She was placed in charge of several distinguished medical gentlemen, successively, but with little improvement in her condition. From that time until when I first saw her, in October, 1876, she had not been free from chorea. Her speech was exceedingly defective, her gait irregular, her extremities in constant motion. During three years she had been deprived of schooling, but when I saw her had just been placed in a boarding school, not to study, but in the hope that she might derive intellectual benefit from being in the presence of students and teachers. I found: Sight, right eye, $\frac{5}{100}$; left, $\frac{10}{40}$. In each eye was found a high degree of astigmatism, which, being corrected by glasses, sight was raised to $\frac{10}{50}$ in right and $\frac{10}{20}$ in left. Glasses were prescribed and worn, and when I saw her two months later I could detect no indication of chorea, and she assured me that she had wonderfully improved in her nervous condition and was quite able to go on with her studies. No medicines were given, and she attributed her cure entirely to her glasses.

At my convenience I shall report many other cases of chorea already observed, of which the above is by no means the most striking or interesting.

GEO. T. STEVENS.
47 EAGLE ST., ALBANY.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 17 to June 23, 1877.

HEAD, J. F., Surgeon and Medical Director. Granted leave of absence for one month. S. O. 121, Dept. of the South, June 16, 1877; and leave extended one month. S. O. 135, Div. of the Atlantic, June 21, 1877.

GRAY, C. C., Surgeon. Assigned to duty at Fort Riley, Kan. S. O. 115, Dept. of the Missouri, June 16, 1877.

FRYER, B. E., Surgeon. Granted leave of absence for 15 days. S. O. 116, Dept. of the Missouri, June 18, 1877.

WOLVERTON, W. D., Surgeon. When relieved by Asst. Surgeon MAUS, assigned to duty at Fort A. Lincoln, D. T. S. O. 77, C. S., Dept. of Dakota.

WHITEHEAD, W. E., Asst. Surgeon. Assigned to duty at Fort Learned, Kan. S. O. 115, C. S., Dept. of the Missouri.

MAUS, L. M., Asst. Surgeon. Assigned to duty at Standing Rock Agency, D. T. S. O. 77, C. S., Dept. of Dakota.

TORNEY, J. H., Asst. Surgeon. Relieved from duty in Dept. of the Gulf, and to report in person to the Com'd'g General, Dept. of the Missouri, for assignment to duty. S. O. 135, A. G. O., June 15, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending June 23, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
June 16.....	0	3	99	2	52	40	2
" 23.....	0	9	93	1	58	38	2

ABUSE OF MEDICAL CHARITIES.—The British medical press complains bitterly of the growing abuse of medical charity. The medical provident system does not seem to have much effect upon it, so long as the different clinical teachers are so greedy of the material which out-patients can supply.

THE HUDSON RIVER STATE HOSPITAL FOR THE INSANE.—The Board of Managers of the Hudson River State Hospital met June 21st, and approved plans for the erection of the centre building, which it is expected will be enclosed by autumn, and will take all the money appropriated by the last Legislature.

LONG ISLAND COLLEGE HOSPITAL.—The Commencement of this institution was held at the Brooklyn Athenæum on the evening of June 21st. The degree of Doctor of Medicine was conferred on thirty-four graduates. The Rev. Jesse B. Thomas, D.D., delivered the address, and Dr. H. H. Kane, of the Graduating Class, the valedictor

Original Communications.

A CASE OF MENINGITIS

FOLLOWING ACUTE PURULENT INFLAMMATION OF THE MIDDLE EAR—DEATH IN ABOUT TWENTY-EIGHT DAYS FROM THE APPEARANCE OF THE AURAL SYMPTOMS—POST-MORTEM EXAMINATION OF THE BRAIN AND TEMPORAL BONE.

By D. B. St. JOHN ROOSA, M.D.,

PROFESSOR OF OPHTHALMOLOGY AND OTOLOGY IN THE UNIVERSITY OF THE CITY OF NEW YORK.

On the 23d of March, 1877, Mr. A. H. B., æt. 41, whom I had treated for syphilitic iritis some two years before, sent for me, on account of a severe pain in the right ear. I found the patient, who was a well-developed man, apparently in robust health, sitting up, but giving evidences of great pain. The pain was referred to the depth of the right ear. There was a profuse discharge of blood and pus from the auditory canal; blood predominated, however. The membrana tympani was perforated. The outlines of the ossicles were not seen on account of the swelling of the lining membrane of the tympanic cavity and of the remains of the drum-head. There was some sensitiveness of the tragus and auditory canal, but no especial tenderness of the mastoid process.

The patient stated that on a return from a visit to Memphis and Mobile, or about five days before, he had a bad cold in the head, with severe neuralgic pains in the same region.

Three or four days after the "neuralgia" he consulted Dr. Royal Prescott, through whose courtesy I am able to present the history from that time.

Dr. Prescott says, in a note to me: "Mr. B. came to my office on the evening of March 20th, complaining of pain in the right ear, and deafness on the affected side. He thought that his hearing had been affected for some time on that side. On examination I discovered a quantity of inspissated cerumen, which I removed by gently syringing with warm water. . . . . I inserted a few drops of warm glycerine and morphine, put in a pledget of cotton, gave him an anodyne, and directed him to take a saline cathartic. He came in on the following morning and reported that he had passed a tolerable night, that the pain was somewhat abated, but had not wholly disappeared." Dr. Prescott then ordered an infusion of opium, and directed him to remain in the house for a few days.

On March 22d, according to Dr. Prescott's note, the pain had increased, when hot fomentations to the ear and an anodyne were ordered. The patient exposed himself in a severe storm in his last visit to Dr. Prescott's office, and became worse. At this stage I saw the patient. I ordered the application of two leeches to the tragus and the warm douche every hour. My associate, Dr. E. T. Ely, called at nine the same evening, and found him so comfortable that a hypodermic injection of morphia which I had proposed was not administered.

On the 24th, the patient was quite comfortable and free from pain, *but he was very restless and did not sleep well.* He said that his sleeplessness was not on account of pain in the ear, but on the 25th two more leeches were applied. The discharge from the meatus continued to be very abundant and bloody. The warm douche was continued, and bromide of potassium was given at night. On the 26th there was no pain in the ear, and no especial tenderness about it, but his head was very uncomfortable and restless. The patient's tongue was heavily furred, his pulse 96, and temperature 101°. He was sleepless and without appetite. Cerebral hyperæmia was diagnosticated, and 10 grains of calomel were ordered at 11 P.M. From the 28th to the morning of the 30th the symptoms were about the same. By the aid of morphia tolerable sleep was secured, but the patient showed great anxiety and discomfort. On that morning, at my request, Dr. Lewis Fisher saw him in consultation, and continued to see the patient with me until his death. Dr. Fisher concurred in the diagnosis, and inasmuch as the patient had suffered from syphilis, he suggested the use of iodide of potassium in addition to the warm douche and morphine. On March 31st the patient had a severe chill at noon, which lasted for an hour, and which was not followed by sweating. The temperature was 100° at about 12 noon; at 9½ P.M., 103¾°. The patient stated that he never had had a malarial attack, although he had spent much of his life in a malarious country. The formation of pus was supposed by Dr. Fisher and myself to be indicated by this chill. There was, however, no tender spot about the ear, and there seemed no chance of getting at the abscess, if one was forming. There continued to be a free discharge from the meatus. We therefore decided to administer quinine, as an antipyretic. We accordingly gave him 20 grains of sulphate of quinine and 30 grains of bromide of potassium, following it up in four hours after with 15 grains of quinine. On April 1st the patient appeared much better. His temperature was 98°, his pulse 72, and there was no pain in the ear, and scarcely any in the head. The quinine treatment was kept up. Mr. B. began to sit up and converse on business matters and became very cheerful, although we had given him a gloomy prognosis immediately after the occurrence of the chill. He did not, however, sleep quite as well as a convalescent should, and on the 12th of April he suddenly complained of severe pain in his right knee joint, and his temperature ran up to 103½°. He slept scarcely at all; he also complained of pain in his head, which was not localized. The discharge from the ear diminished very much. The pain in the knee disappeared in about twenty-four hours, and occurred with great severity in the back and left thigh. The mastoid process was cut down upon, on the 9th or 10th, but no disease of the bone or periosteum was detected. On the 15th the temperature was 103½°, the pulse 84, and a low muttering delirium occurred at intervals. Prof. John T. Metcalfe saw the patient on this day, and gave his opinion that it was a case of cerebral disease extending from the ear, and although he regarded the prognosis as very unfavorable, suggested the use of mercurial inunctions and iodide of potassium, with a very faint hope that syphilis was causing some of the symptoms. On the 16th the patient was scarcely ever conscious, his temperature continued at 104°–104½°, and on the morning of the 17th he quietly died.

The autopsy was made by Dr. W. D. Spencer, five and one-half hours after death.

Head.—The bones, except the right temporal bone, were normal. The dura mater was normal. The sinuses were filled with dark, soft coagula.

Brain.—The vessels on the surface were markedly hyperæmic. The vessels at the base appeared normal. In the meshes of the pia mater, most markedly at the base, and equally on both sides, was seen quite an extensive fibrino-purulent exudation, which was thicker along the course of the larger vessels; this exudation extended anteriorly to the surface of the right hemisphere, when it was more sero-purulent. The lateral

ventricles were markedly dilated and filled with blood-stained serum. The brain substance was firm and markedly hyperæmic, otherwise normal as far as examined. The connective-tissue posterior to the external ear and coating the mastoid bone was somewhat œdematous. (This was the site of the incision down to the bone, an incision that was kept open by tents.)

Description of the temporal bone:

Mastoid.—There are two discolored spots on a line running outward from the meatus auditorius externus.

Petrous portion.—Just in front of the elevation made by the semicircular canals the bone is exceedingly soft. In washing it was broken down, and the whole structure here, or the roof of the tympanic cavity, is found to be in a state of ulceration. An opening through the squamous portion of the bone, or in the temporal fossa would be about on a line with this ulcerated point.

Lateral sinus.—The bony wall of this venous canal is discolored, thinned, and softened throughout about one-half its extent.

Tympanic cavity.—The ossicula are intact, but the whole of the membrana tympani is gone.

Remarks.—We are all familiar with cases of meningitis resulting from disease of the middle ear of long standing, but cases of this kind following acute aural disease are fortunately more rare. Indeed, we generally expect to subdue an acute inflammation of the ear, if we are able to treat it antiphlogistically within a few days of the outbreak of the disease. Nowhere does rational therapeutics avail more than in acute affections of the ear. In this case there was never a discharge from the ear, according to the patient's statement, until a few hours before I saw him. The affection began as an acute *otitis media catarrhalis*, with impaction of cerumen, which the patient, until corrected by Dr. Prescott, thought was a facial neuralgia—a not uncommon, but dangerous error. It ran a violent course, as is shown by the bloody discharge and great pain.

The purulent process in the middle ear extended to the tissues of the roof of the tympanic cavity, and to the labyrinth and to the membranes of the brain, where the hyperæmia soon became an exudative inflammation of the base, extending very slowly to the upper surface, and consequently leaving the intellect unimpaired for a long time. The disease of the bone went on slowly at the same time. The pyæmic symptoms are explained by the disease of the lateral sinus. The circumstances of the patient, for he lived in a crowded boarding-house, were not favorable to the quiet that should always be secured for a patient with cerebral hyperæmia, and I fear that I did not lay stress enough upon this requisite in the first few days My suspicions as to cerebral hyperæmia were somewhat lulled, however, during the first forty-eight hours by the fact that the pain in the ear nearly entirely disappeared from the first application of the leeches. The only part of the case that now seems obscure to me, and in this opinion Dr. Fisher agrees, is the reduction of the temperature, and the great improvement in the general condition immediately after the use of the large doses of quinine. We gave quinine, as has been intimated, on the shadow of a hope that we were dealing with a severe case of malarial fever, instead of one of abscess of the brain or inflammation of the meninges. With a diagnosis of either of the latter named, we had simply to sit down with folded arms and await the dissolution of the patient. The reduction of the temperature immediately followed the administration of the quinine, and each day, as it showed a disposition to rise, the same remedy seemed to lower it, until the septicæmic pains set in, when it utterly failed. Indeed, so well was the patient for about a week, that Dr. Fisher and I were inclined to change our original diagnosis. Such a lull in the symptoms of cerebral disease resulting from an inflammation of the ear, is, however, not without precedent.

There was always an unbroken bone between the ulcerated tympanic cavity and the membranes of the brain, so that the fatal inflammation must have extended through some of the small foramina, which abound in the temporal bone. This is no new pathological observation, since it has long been known, although not always remembered, that we may have meningitis as an extension of aural disease without the occurrence of caries. There was lately a case of acute suppuration of the middle ear, at the Manhattan Eye and Ear Hospital, which resulted in death from meningitis, with rupture of one of the over-distended sinuses, five days after the perforation of the membrana tympani.

AN INTERESTING CASE OF HYDROPHOBIA AND A QUESTION OF DIAGNOSIS.

By M. STORRS, M.D.,

HARTFORD, CONN.

The following case of hydrophobia is the only one which has occurred in this city for thirty years. Not only on this account, but from the well-known character and social position of the victim, it has excited great local interest. We will relate the case with accuracy without going into needless detail.

Prof. Alvergnat, æt. 52, was born in Paris. In early manhood he was a soldier in the French army. Of late years he has been a resident of this country, a teacher of the French language, and engaged in literary pursuits; had a good physical organization, with a manly and soldier-like bearing. He was of a nervous temperament, but a man above the average in hope and courage. Deeds of valor are related of his earlier years. His mind was well balanced and philosophical; his library and his literary works bear testimony to his love of study. Added to all he had a firm Christian faith.

On the night of April 30th a strange dog made its way into the hall-way of his house. He offered the dog food, which was refused. Failing to coax him out of the house he attempted to push him on with his boot, when the dog turned furiously upon him and bit him in the leg, chin, and both hands, making a dozen wounds altogether. These wounds were immediately dressed by Dr. Chamberlain, of this city, who washed them with carbolic acid and cauterized them with nitric acid. Nothing peculiar attended their healing. The dog was not supposed at this time to be mad, but was killed the next morning.

Prof. Alvergnat was greatly excited at the time, but after a few days he appeared cheerful, and said to his friends that he thought that he should have no further trouble. He was annoyed by what was said and written to him on hydrophobia and its treatment, but he had settled the plan to be pursued in his own mind, and was less worried by these ill-timed and gratuitous offers of aid. He had, however, a few days before the attack, great nervousness and apprehension, an indefinite feeling of something terrible impending.

On the 29th of May, about 2 A.M., he found great difficulty in swallowing. Drs Chamberlain, G. J. Hawley, and myself were sent for about 43.0 A.M. Found him in bed, somewhat excited. He said that he had great difficulty in swallowing, and he knew what it meant. He had made himself acquainted with all the

symptoms of hydrophobia, and knew the import of the spasm of the throat. His face was flushed; pulse 120; no headache; no pain except about the chest and from the spasms of the throat when attempting to drink. I spoke encouragingly to him and attempted to soothe him, but he distrusted and regarded all such endeavors as efforts to deceive him. He was perfectly rational, and listened with attention to all that was said to him. His excitement was not in any way loud or boisterous; no rage. He acted as a man would who realized that terrible realities were near at hand, and that but little time remained—perhaps only until the next paroxysm—in which to arrange his affairs, spiritual and temporal. He wished to improve every moment. His minister, lawyer, and other persons whom he desired to see were at once summoned.

He made his will, attended to all business matters in a business-like manner, conversed with friends, stated to his spiritual guide that he had full faith in Christ, and was ready to meet his God. He had a private interview with his wife in regard to his burial, etc., and then seemed ready for the fearful struggle before him. He stipulated that such remedies should be given as would make his sufferings easier to bear.

We first gave him some water in a cup. He took it into his mouth, but in the attempt to swallow it was ejected with great force. It was not vomited, coughed, or spit out, but thrown out without any volition, and in a manner impossible to perfectly imitate. The chin was thrown a little forwards and the head somewhat backwards during the paroxysm. After the fluid was thrown out of the mouth it seemed impossible to breathe for ten or fifteen seconds. It was a catching for breath. A fearful struggle to behold, and such as I have never before witnessed—eyes widely opened, face flushed, with a look of terror and despair. When respiration took place he could exclaim and articulate, though the distress of the paroxysm had not ended.

The paroxysms due to reflex excitability were brought on by the act of swallowing only substances acting upon the throat. Those external causes acting through the special senses—light, sound, and being touched—only started him and added to his fear and anxiety, but did not excite any marked spasm during the first day. We were, however, attentive to everything that could possibly disturb him in this way. I was careful, for instance, to apprise him before touching any part of his body. There were no tetanic or eclamptic spasms.

I have already stated that his mind was clear. He had anxiety and alarm, but he was quieted by soothing words. When quite fearful and apprehensive he wished to cling to some one. He liked to be caressed. He wanted to exchange kisses. Nothing was attempted in the treatment of this case from first to last but to soothe and quiet. We did not seek to eliminate any poison or treat any local complication. We first gave, about 6 A.M., a hypodermic injection of morphine, gr. ss., and atrophine, gr. $\frac{1}{100}$. Soon after, we gave a teaspoonful of the following, in sweetened water:

R Bromid. potass	ʒ i.
Chloral hydrat	ʒ ss.
Fluid ext. scutellas	ʒ ij.
Aq. puræ	ʒ i.
M.	

This was thrown up, as the water before, with the same distressing spasm of the pharynx and larynx. The same was then given as an enema, adding tr. aconit. rad. gtt. ii., and ergot. fld. ext., ʒ ss. This was retained and to be repeated every four hours. He soon became more quiet, but did not sleep. Pulse gradually lessened in frequency, touching 80, the lowest point. He was thirsty, but every attempt to drink occasioned a severe paroxysm; drinks were, therefore, abandoned. Ice in a napkin was put to his lips. I am inclined to the belief that some of the melted ice ran down the throat without any effort of swallowing. There was no marked increase of the saliva at any time, no biting or gnashing of the teeth.

At 5.30 P.M. he became very much excited. He was soon quieted by giving him larger doses of the above mixture in an enema. At 7.30 P.M. we gave him beef-tea through a glass tube. It excited the spasms as before, but not quite as severely. About a teaspoonful was swallowed. This greatly encouraged the patient, and he said: "Is it possible that I can swallow?" After more of the mixture had been given he slept for three hours, the first sleep since the attack. At 10.30 P.M. I left him, still quiet, for the night, under the care of Dr. Hawley and Prof. Hall. I was recalled in a few minutes. He had suddenly awakened in a paroxysm of difficult breathing, followed by exclamations of fear and surprise, as stated to me on my arrival. We quieted him as before, by his enema.

On my return, about 5 A.M. Wednesday, a very restless night was reported. A spasm every few minutes; great dread of being left alone. He had attempted at intervals to take nourishment. He had swallowed a little with difficulty. Swallowing, however, was not attempted after daylight. The enemas had been increased in frequency and amount during the night, but had not been fully retained. They were now given through a tube, and ʒ ss. of laudanum was added, and they remained up.

There was at this time some delirium and wandering. Previous to this morning no mental disturbance whatever; for the fear and anxiety, so strikingly manifested, seems to have been well grounded, and the delirium now was not more than is often seen when anodynes are freely used. At this time he struck us, the first violence offered. We were persuading him to retain the enema, contrary to his wishes. He soon apologized for this rudeness. Dr. Knight was now called in, and remained with him until death.

The following is from his notes:

"Wednesday, May 30th, 8 A.M.—Patient is conscious. Is having spasms. Was given rectal injection of ʒ iij. of the mixture—laudanum ʒ i., ergot ʒ ss.—which was mostly retained, and he soon became quiet. During his sleep, perhaps every twenty or thirty minutes, there would occur two or three inspirations of a spasmodic character, precisely similar in kind to, though less in degree, than the fully developed occurring when awake. About 10 A.M. the temperature was 101°, pulse 100. Pulse remained at this point till afternoon, when it began to rise, and continued to do so until death. When the patient was seized with a spasm the head and shoulders were thrown back, eyes fixed and staring, countenance expressive of great terror. At the same time two or three interrupted spasmodic inspirations occurred, lasting a few seconds; then came an expiration and the spasm passed away. No spasms of the limbs were noticed. As the spasm passed off, the patient was excited, violent, and talkative. All the spasms that I saw seemed to occur spontaneously, or, as occurred several times, were the result of touching the patient, as in wiping his face or putting ice to his lips. At 11.30 A.M. woke with a spasm. Had three or four, and then became quiet without any medicine. At 2.30 P.M. a rectal injection of beef-tea and milk, with ʒ ij. of mixture and ʒ ss. of laudanum, were given without arousing him, and was retained. Sleep continued more profoundly than before. Respiration

now became prolonged and jerking. At 4.50 P.M., while apparently as soundly asleep as at any time, patient suddenly awoke and passed into the most severe spasm that he has yet had. At time of spasm passed contents of bowels in bed. As the inspiratory spasm passed away he threw himself violently about in all directions, so that considerable force was necessary to restrain him. While struggling, by continued and forcible spitting, he freed his mouth of a small quantity of thick saliva. Was given morphine gr. ¼ by hypodermic injection, and soon after gr. viii. of chloral hydrate by the same method, and repeated in fifteen minutes. Had several spasms, but became quiet in about an hour. Slept quietly until 12.30 A.M. Thursday, when he awoke with a spasm of less severity than the previous one. From this time until 2.30 A.M. had ten or twelve spasms. For a short time after a spasm patient was delirious, talking incoherently in French, then would drop to sleep until the next paroxysm. During these two hours ten grains of chloral were given every twenty minutes, hypodermically—sixty grains in all. From 2.30 to 6 A.M. had only four or five spasms, and was given two hypodermic injections of chloral, ten grains each. At 6 A.M. was given a rectal injection of beef-tea and milk, with twenty grains of chloral and ʒ ss. of laudanum. From that time he remained quiet until death, at 9.45 A.M."

We may add that, in the convulsive struggle which occurred at 4.50 P.M. Wednesday, there was no general spasm unless somewhat of a clonic character. The movements seemed both voluntary and involuntary, with an apparent desire to get away from something terrible. He would dash against the bedstead and attempt to throw himself upon the floor. Several men were needed to restrain him. He uttered cries heard far out upon the street, not, as some declared, like the cries of the dog on the evening of the encounter, but it was the voice of the patient modified by his spasms and agony. He spat furiously in all directions.

Drs. G. B. Hawley, Wilcox, Jarvis, and Fuller came in about this time. The chloral, by hypodermic injection, was strongly insisted upon by Dr. Jarvis. Dr. Hawley, Sen., favored and assisted in putting the patient into the strait-waistcoat. He suffered less by this mode of restraint.

Pulse was 120 in the evening before death, and became more frequent and smaller as the case went on. The pupils of the eye remained unchanged until two hours before death, when they began to dilate. Respiration became more regular and easy during this period. He died fifty-six hours from the first difficulty in swallowing, asthenic and comatose, without any asphyxia.

A post-mortem was made five hours after death. Present, a large number of the physicians of the city. The following is the result of the autopsy:

General Appearance.—The rigor mortis strongly marked. Considerable discoloration beneath the finger nails, on the neck, and posterior aspect of the body. The wounds slightly reddened. Head.—Removing the calvaria, the arachnoid membrane was found somewhat opaque upon the surface of the cerebrum. Its cavity contained considerable serum. Vessels of pia mater were congested. The large vessels were full. Section of cerebrum showed congestion; cerebrum also, but to less extent. The medulla oblongata and upper part of spinal cord were also congested. Nothing of note was found in the chest, except congestion of the lungs. No coagulum was found in the body. The blood was extremely fluid.

Decomposition.—The embalming fluid was freely poured into the abdominal cavity after the post-mortem, and the body was placed on ice. Yet at the end of forty-eight hours it was disagreeable to be near the closed casket in church.

As this case has attained a wide publicity in connection with a supposed theory of death from fright, and also in connection with differences of opinion as regards the particular disease of which the patient died, whether of acute meningitis, of pseudo-hydrophobia, of tetanus, or of acute mania, it may not be inappropriate to analyze the different symptoms which occurred, and attempt to point out the significance of the more prominent ones as bearing upon the diagnosis.

A review of the foregoing history will convince any medical mind that this man did not die of tetanus. There was no trismus; no tetanic spasms. He did not die of acute meningitis, for there was no pain of the head, and no disturbance of vision or of hearing, and no evidence of inflammation was found at the post-mortem examination. He did not die of acute mania. Trousseau says, in substance, maniacs sometimes evince a dread of liquids, and refuse drink. They can swallow, and will generally take liquids to quench their thirst better than food. They are delirious on all subjects, whilst a rabid person retains his reason, except transient hallucinations, to the very end. Our patient did not show any mental aberration like hallucinations, illusions, or delusions, until near the end. Let us look to the element of fear. It is a theory with some that hydrophobia is only fright; that there is no real disease communicated by the bite of a rabid animal. An answer for such skepticism is near at hand, viz., in the undeniable fact, that animals, without fear or imagination, from a similar origin, have hydrophobia in all its aspects, and die. In the case related by us we have a midnight encounter with an infuriated brute. Severe injuries are inflicted. He has the alarm and anxiety that any rational man must have. He commits his case to the care of his medical counsellor, refusing all intermeddling, and calmly, as it appears, awaits the result. He consulted writers upon hydrophobia; but this knowledge was for the purpose of guiding him in his preparations to avoid or to meet any possible danger. To meet a crisis without fear or panic is to understand its nature and to be in readiness for it. So when this disease laid its firm hold upon his throat, he said that he knew what it meant, and calmly conformed to all the requirements of the situation. The fear, the apprehension, and the depression of spirits just preceding the attack are the conditions almost always seen in the genuine disease, whether in the brute creation or in the child too young for reflection or imagination, or in the prime of manhood.

These prodromic symptoms are as much a part of the disease as the fatal ending itself. And as to pseudo-hydrophobia, it is laid down in Reynolds's System of Medicine that this term should not be used; that it has come into use from a faulty diagnosis; that we either have the genuine disease, which kills, or some other disease which furnishes some of the symptoms of hydrophobia, and which disease may or may not kill.

One word more. Those who were acquainted with Prof. Alvergnat knew him to be a thoroughly brave and conscientious man. To say that he died of fright, that he yielded up his life to an imaginary foe, is, in their opinion, an unworthy reflection upon his character and memory.

Treatment.—Chloral and morphine were used. Morphine subcutaneously, chloral at first by rectal and

later by hypodermic injections, in quantity and frequency sufficient to control or moderate the violent spasms. It was used as suggested in Ziemssen, as follows: "It is hoped that further experiments will be made with this drug in the form perhaps of clysters combined with subcutaneous injections, with the object of producing euthanasia."

Chloral had more control of the spasms than morphine. Chloral undoubtedly prevented a repetition of the indescribable paroxysms of suffering and agony. It held the patient moderately quiet a large part of the time, a *desideratum* in this dreaded malady. Chloroform was attempted, but was given up on account of the struggles against it.

Recapitulating briefly: We have a man in good health, badly bitten by a dog, since known to have been sick. In four weeks the victim is taken down. He has all the symptoms from first to last which are laid down by our best authorities as belonging to hydrophobia, unless we except the symptom of the increased flow of saliva, which, in many of the cases detailed, has not existed. On the third day he dies. Autopsy reveals no evidence of any other disease.

CONGESTIVE AND ORGANIC STRICTURE OF THE URETHRA, ACCOMPANIED BY RETENTION OF URINE,

TREATED SUCCESSFULLY WITH WATER PRESSURE BY MEANS OF A SYRINGE.

By ALEXANDER HADDEN, M.D.,

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During the last six years quite a number of the above-named classes of cases have come under my care for treatment, and have been uniformly relieved. It is well, perhaps, to mention that they were not complicated by false passages, sinuses, or fistulæ, but were simple, chiefly annular, within or immediately anterior to the membranous portion of the urethra, decidedly organic, associated with a spasmodic or congestive condition. The first case which came under my care will represent practically the others. A Mr. M——, a man of ordinarily sober habits, of about 35 years of age, engaged in the milk business in this city, had had gonorrhœa twice, the last time six years before; each time had suffered from gleet several months after; had noticed for a year previous to his calling on me that his urine did not pass freely, and that the stream was growing smaller. When he first called he was suffering from retention of urine. It was early in the morning, about 2 o'clock; had been spending the previous evening with some friends and taken wine freely. I tried all my catheters in turn, both flexible and silver, of nearly all known sizes and forms, but failed. Realizing what the nature of the stricture was, I resolved to try the application of ice-water directly to the stricture through the urethra by means of my uterine syringe, believing that the opposite of Prof. Syme's axiom might hold true, that if water could be passed into the bladder through the stricture, an instrument might be also by care and perseverance, and, besides, the congestion of the part might be so far relieved by the application of cold that the urine might pass out. I accordingly commenced the course of treatment in the following manner: Placed the man on his back on a lounge, knees flexed; filled the syringe with ice-water and passed the nozzle down to the stricture, which was in the membranous portion of the urethra, and compressed the walls of the urethra around the nozzle within about an inch of the end, to prevent the return of the water, and then made firm and steady pressure on the piston. The first syringeful did not pass the stricture after the pressure of fully one minute. I refilled and continued the pressure for about the same time, when the water commenced to pass slowly into the bladder. The contents of the syringe being thrown in, I allowed him to rise, and to his great relief and mine he passed his urine, fully a pint in quantity; stream, however, was very small. This being accomplished, I made an effort to pass a small bougie; succeeded in engaging a number two flexible. This I did not continue in long, as his urethra was sensitive, which any irritation might increase. I then allowed him to go home, gave him pulv. Doveri gr. x., to be taken on going to bed, restricted his drink and diet to flaxseed tea, milk, and farinaceous food. Ordered him to call on me that evening, which he did. He had passed his urine several times during the day with considerable difficulty and pain. I made an effort to pass a sound number three, tapering, but was unable; also number two flexible bougie, which failed. I then resorted to the water application, in the same manner and by the same means as above described, which was kept up for a few minutes, and passed into the bladder with little or no difficulty, which I followed by a number three tapering sound to number four by careful manipulation; this I allowed to remain about ten minutes, at the expiration of which time I syringed his urethra out with tepid water and sent him home, with orders to take a saline cathartic in the morning and to continue the other directions. The following evening he called again; his urethra was less sensitive. Syringed it with cold water, and was able to engage a size larger sound. This treatment was continued until I was able to introduce number six sound and the sensitiveness of the urethra overcome, after which I relied solely on the sound as the means of dilatation. The instrument best adapted for the above purpose is the Davidson syringe, with a long nozzle attachment, like the uterine syringe.

This plan of treatment will, in my opinion, relieve every case of the above-named, and do it without risk of making false passages and other injuries which the means usually employed are likely to do even in skilful hands.

Dr. J. F. Golding proposes to give in a future number of this journal the history of a case, which will clearly set forth the great advantages obtained by the use of this means of dilating strictures of the urethra.

April 21, 1877.

Progress of Medical Science.

Suffocative Diseases of the Upper Air-Passages in Brooklyn, and the Results Obtained by Tracheotomy.—Dr. Pilcher, of Brooklyn, has presented a report to the Medical Society of the County of Kings, in which he gives an elaborate statistical account of the conditions under which croup has existed in Brooklyn during the past seven years, and has made deductions of special interest to practitioners. He uses the term "croup" as including "all forms of acute inflammatory disease of the larynx or trachea, which may produce narrowing of their calibre to such an extent as to occasion serious prolonged dyspnœa," finding on inspection of the official records that any attempt to make sharp distinctions in these affections of the upper air-passages was calculated to mislead.

The chief point of interest in the inquiry centered

about the matter of dangerous dyspnœa, and in relation to it, the allied question of tracheotomy.

According to the tables of the Board of Health, from 1870 to 1876 inclusive, there were 2,769 fatal cases of croup in 80,000 certificates of death. Young persons were, as usual, the chief victims; in fact, 2,300 out of the whole number, and 83 per cent. were under four years of age, and only 30 were ten years or over. The number of deaths in 1870 was 230, but in 1876 had reached the alarming figures of 535. The increase of the population during this period is not given, but the increase of the mortality rate is presumably not to be explained by the increase of the population merely. Among the tenement-house population this is the view taken.

Croup was found, on the general average, to be less fatal in midsummer. In September a decided increase took place, and the highest point was reached in December, an agreement very nearly with what has been noticed in the city of New York.

The following points were noted in regard to the locality of the disease: 1. Each croup district abounded in tenement houses, a fact which is held to be synonymous with crowded, ill-ventilated, and filthy habitations, and an abundance of poorly nourished and delicate children. 2. Each of these foci presented soil conditions of an unfavorable character, that is, they were along the water, or on improperly filled ground, or on the site of old watercourses and the like. In many of them the sewers had become a nuisance, the tide driving in their contents into the cellars. Notwithstanding, however, that the overcrowding of tenement houses in Brooklyn is said to be surpassed in other cities, as in New York, the mortality in the former city is one and a half times greater than New York from these special affections.

Another point showing the close relationship of (so-called) croup and diphtheria, is that the rate of mortality from both rose proportionately from 1870 to 1873 inclusive, while they both reached their highest point in 1875, and then together commenced to decline.

The statistics of tracheotomy are especially interesting, being a more or less perfect record of 121 cases, very few of which have heretofore been published. Of these 97 died. Of the recoveries the oldest one was 52 and the youngest 2¼. Twelve were operated on between one and two years and all died. The duration of life after operation in the fatal cases was stated in 66 instances. The time of greatest mortality was during the first twenty-four hours, and on the third day; during each of which periods, 19 died. On the sixth day 4 died, on the eighth day 2, on the fourteenth day 1, and on the eighteenth day 1. The immediate cause of death was given in 62 cases and was as follows: Asthenia in 24 cases, and in 19 within an average of 32 hours; asphyxia from accumulation of exudation below the canula in 16 cases, and within an average of 2¾ days; bronchitis and pneumonia in 13 cases, within an average of 4½ days after the operation.

In two instances where chloroform produced dangerous symptoms nitrite of amyl was given. In nineteen instances there was troublesome hemorrhage, and seven appeared to have died from this cause. In one instance the canula was retained twelve months, in another but three days, the shortest period. In nearly every instance tracheotomy was not performed until the patient's condition was desperate, and yet twenty of these operated on recovered. A study of these statistics leads the author to conclude that the first danger for the patient after a tracheotomy is exhaustion produced by one of two causes, or both, viz.: first, the continuous muscular effort which the patient makes in order to breathe, and second, blood poisoning, which is itself produced by two factors: primarily the toxic influences of the disease itself upon the blood, and secondarily the effect of deficient oxidation. Where there is manifestly systemic poisoning, as in those cases that are ranked as diphtheritic, the toxic agent is still in operation after the tracheotomy, though the other factors just noted that produce exhaustion are eliminated. But then there are other lesions which have to be met. Resulting from the prolonged stenosis of the larynx and trachea, the air within the alveoli has been rarified, and emphysematous dilatations and œdematous infiltration have seriously damaged the lungs. This is to be regarded as the second element of danger, but further the deposit may still extend below the canula and death take place from asphyxia, or, finally, a fatal bronchitis and pneumonia may ensue.

It being clear that the operation of tracheotomy largely tends to avert the elements of danger in suffocative laryngitis, Dr. P. questions the dangers of the operation itself; the first of these he takes to be hemorrhage, the second traumatic fever, and third, phlegmonous inflammation, erysipelas, gangrene and diphtheria of the wound, emphysema, etc. Then comes inhalation of cold air through the tube, and obstruction by pieces of membrane or dried matter. He finds that nearly all of these conditions may be avoided by skill and care in the management of the case. Every individual case must, of course, be studied by itself, while it has to be borne in mind that the expectation of life under five years is materially less than above that period.

Tracheotomy is held to be indicated "in all cases of croup in which laryngeal stenosis becomes so great as to become an element of danger, either immediately, by rapid suffocation, or by a more gradual asphyxia, resulting from a slow accumulation of carbonic acid in the blood; or when, by its long continuance in a less severe form, danger is imminent of the production of diffuse bronchial catarrh or acute œdema of the lungs, or from the exhaustion occasioned by prolonged excessive muscular exertion in sustaining respiration."

The operation should not be deferred until the case is at best a forlorn hope, and as it is no trifling matter should not be considered as a simple procedure that belongs to minor surgery. Skill in operating is known to be of vital importance, and yet distrust of one's self should not serve as an excuse to the medical attendant when a timely operation might save the patient's life.—*Proc. of the Med. Soc. of the County of Kings.*

On "Oriental Sore" (Delhi Boil).—The results of the special investigation into the nature and pathology of Delhi boil, undertaken by Drs. Lewis and Cunningham, at the order of the Government of India, have just been published. The report states that the Delhi boil is identical with the sore prevalent in other parts of India, and with the chronic sore known as *bouton* in Aleppo, etc. The reporters believe that the cause of the disease is to be found in the character of the water; that the quantity of salts in it, and its extreme hardness, have most to do with the matter, and that organic impurities have no influence. They affirm that the sore is not the direct consequence of general unhealthiness, malarial poisoning, or the like, but that its development is determined by bad water of a particular character; that the salts may not be the actually deleterious ingredients, but the hardness of the water is an index of properties in it which favor the production of cutaneous disease.

In reference to the pathology of the sore, the report is very full. The secretion contains a few blood-corpuscles, a large number of lymphoid cells, and some yellowish white bodies, the size and form of millet-seeds. The last are altered hair-sacs. On examination of a sore extirpated before ulceration, Drs. Lewis and Cunningham found that it is surrounded by a belt of indurated tissue; the skin over it is thinned and eroded, the Malpighian layer deepened, and the papillæ enlarged. The even line of the base of the preparation showed no organic connection with the subjacent structure. Lymphoid cells fill every available place in the papillæ, invade the corium, and destroy the hair-follicles and glands. The hair-follicles are pushed forward by the new growth, until they are frequently found free on the surface. The sweat-glands are only affected in the severest cases. The cells are distributed about the vessels especially, and are imbedded in a cement substance, having the character of adenoid tissue. No parasitic element is mentioned as having been found.

Drs. Lewis and Cunningham affirm that neither syphilis nor scrofula will account for the disease, but that it is a phase of lupus. Delhi boil "is in no way distinguishable from one or other of the various forms of lupus; its clinical history is similar, as also its morbid anatomy, and the treatment which has proved the most satisfactory is that which is generally recommended for lupus." They add, however, that it may be somewhat modified from its European prototype. Finally they suggest the term *Lupus endemicus* for the Delhi phase of oriental sore.

Dr. Tilbury Fox, in commenting on this report, dissents entirely from the view that the disease is lupus. He shows that the clinical features of Delhi boil and lupus, instead of being similar, are in a great many respects dissimilar. Further, the proved inoculability of the disease; the influence of bad sanitary condition, such as those of place and water in its causation; the epidemic character of the disease; its localization to certain places; its disappearance on the removal of troops from cities to cantonments outside; its liability to attack new-comers; its disappearance for months or years, and the fitful character of the outbreaks,—all go to show that oriental sore is not a phase of lupus. The morbid appearances, as Dr. Fox points out, offer no reliable diagnostic ground, for these are very similar in general features, not only to those of lupus, but also to those of scrofulous ulceration and syphilitic disease, and in minute appearances to those of rodent ulcer and pachydermia. The argument that the same treatment cures Delhi boil and lupus is of no value. Dr. Fox is perfectly convinced that oriental sore is not a parasitic or a lupoid disease, but one *sui generis*. It is a malady having furunculoid or cachectic affinities, and is liable to be confounded with lupus and syphiloderma.—*The Lancet*, April 7, 1877.

Prevention of Epileptic Attacks by Subcutaneous Injections of Apomorphia.—Dr. Riegel, of Cologne, in the course of his experiments with apomorphia, found that hypodermic injections of the drug prevented to a considerable extent the attacks of epilepsy in a case under his observation. This experience led Dr. Vallender, of Branweiler, to try the remedy in a desperate case of epilepsy, in which the attacks numbered from 10 to 15 in 24 hours. Each attack was preceded by an aura, consisting in a feeling of heat with sharp pain in the epigastric region. The feeling of heat spread from the stomach over the whole of the upper part of the body, while the lower extremities were cold as far up as the knees. After a free interval of a few minutes the attack would follow: cry, loss of consciousness, clonic spasms. One-twelfth of a grain of apomorphia was injected subcutaneously during the aura, and instead of an attack, a state of syncope with unconsciousness followed, lasting for some minutes. Subsequently only one-twenty-fifth of a grain was used—enough to produce nausea, but not vomiting, and this quantity was injected as often as possible during the aura, sometimes as often as five times a day. It always prevented the attacks, or rendered them much shorter and milder; whereas, when it was not given, the paroxysm was as severe as before. The paroxysms gradually became less frequent and severe, and finally disappeared entirely. The injections were then discontinued, but as the attacks returned, they were resumed after fourteen days, and continued for many weeks. During the eight weeks immediately preceding the writing of this article, there had just been the slightest sign of an attack.

In a second case, the paroxysms lasted a long time, and were repeated several times a day. The aura consisted in a feeling of vertigo, and was separated by a very short, almost inappreciable interval from the attack. In this case it was of course very difficult to make the injection at the right time, *i. e.*, during the aura. Nevertheless, the paroxysm was very much shortened after each injection. The treatment was continued several weeks, and the attacks gradually became less frequent. During the last four weeks there had been no return of the attacks.

In a third case, the aura preceded the fit by about a quarter of an hour, and consisted in a pricking feeling beginning in the toes and extending upward, along with a feeling of constriction across the chest, and palpitation of the heart. Whenever an injection was made during the aura, the paroxysm was entirely prevented, but unfortunately the patient did not remain long enough under observation to enable Dr. Vallender to ascertain the influence of the treatment on the frequency of the attacks.

In the first case, the disease had set in suddenly at the age of twenty, and had lasted two years; in the second, the patient had suffered from fits since her childhood, and her mother had been epileptic; in the third, the disease had existed for several years.—*Berliner klinische Wochenschrift*, April 2, 1877.

The Perils of the Cigar.—Of course there are plenty of men who believe that smoking is positively injurious. We have had it proved over and over again that the man who smokes is sure to die. Even the living smokers who have by mistake grown old cannot dodge this dreadful and indisputable issue. Then, again, before they die, these smokers are said to be addicted to loss of memory (forgetting their promises to reform, no doubt), lack of will power (to stop the habit perhaps), loss of sight, loss of muscular power, taste, smell, feeling, procreative power, and finally idiocy. All this is dreadful and causes us to rejoice that, for a time at least, we have given up the use of tobacco. But there is really a serious aspect to this matter which deserves more than ordinary attention, and that is the liability of syphilitic contamination through the medium of the weed. Recently an English journal cited the case of a young girl, a manufacturer of cigars, who with a chancre upon her lip moistened with saliva the tips of all the cigars she made for a period of three days. This is a well-authenticated case, and it is impossible to say how many more there are like it which are constantly spreading the dreadful poison to unsuspecting pleasure-seekers. The abominably disgusting practice among tobbaco-strippers of moistening the leaf with spray from the mouth is doubtless an occasional, if not a common cause of infection.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE STATE REPORT ON PAUPERISM.

How to prevent and control pauperism are the problems of the age. Medical men are by virtue of their calling and association particularly interested in everything which may have a direct or indirect tendency in investigating a growing and monstrous evil. The establishment of State Boards of Charities necessarily meets with the hearty approval of every humanitarian who may desire to investigate the subject from a legitimate and authoritative stand-point. The work of these boards has thus far been productive of good in the presentation of the facts connected with the natural history of pauperism, and the suggestion of means for the prevention of the crime. Of course, all investigations are yet in their infancy, but some points are being established which invite thoughtful consideration. The last report of the State Board of Charities * furnish not a few of these, based upon the careful and discriminative study of the history of pauperism in the different counties of this State.

This report states that among the many factors which help to fill our alms-houses are heredity, habits of idleness, education, disease, old age, insanity, prostitution, the abuse of stimulants, etc. To the last about nine cases out of ten are commonly attributed, but statistics show that only thirty-one per cent. of the inmates of the poor-houses were intemperate. The impossiblity of obtaining accurate histories respecting the habits of parents, precludes a proper classification, but sufficient information has been gleaned from keepers and old residents in the rural districts to warrant the conclusion that the mode of life of the parents was often followed by the offspring. The institutions situated at a distance from large cities and towns furnish the most striking cases of heredity, for the reason that most of the paupers are well known in their respective counties, and cannot migrate without the knowledge of the authorities. About fourteen per cent. of the inmates are the offspring of pauper parents; over three per cent. are from pauper fathers, the rest being from pauper mothers.

Records similar to the following appear in the books of almost every institution: "A family, admitted twelve years ago; wife and child died; father feeble-minded, and two children idiots; preceding generation also paupers." "A woman and daughter, the mother twenty-one, and the daughter seventeen years in the house; parents of woman were paupers, and every member of the family for three generations has at some time been a public charge," etc. These are certainly strong proofs that heredity plays no small part in the causation of pauperism.

There are in the State, it appears, fifty-six county and two town poor-houses and six city alms-houses, containing 12,614 pauper inmates, of whom only 339 are colored. The sexes are about equally divided—6,384 males to 6,230 females. In these various houses are yet 2,179 children under sixteen years of age. Nearly half (45 per cent.) were born in this country, and about one-third (34.31 per cent.) in Ireland. Of the parents, about sixty-two per cent. were of foreign birth. From the whole number, over twenty-one per cent., or 2,656 persons became paupers before they were twenty years old. The average time of dependence for each pauper is 4.88 years. As might have been expected, the ratio of ignorance is large. Of the whole population of the institutions in New York State only twenty-nine per cent. received a common school education, the remainder being comparatively unlettered.

To old age less than seventeen per cent. of the cases are attributed; the largest number, or fifty-nine per cent., of the inmates being between the ages of twenty and sixty, viz., the period of greatest mental activity.

All kinds of reformatory measures have been taken to prevent the spread of this scourge, but, unfortunately, with little success. We read of the system of national workshops in France, in the years, 1790, '91, 1830 and 1848, and the disastrous results thereof; of labor exchange bureaus; of district visiting among the poor; of reformatory institutions; of work, instead of alms; and loans, instead of doles; but none seem to strike at the root of the evil. Beggars go from door to door, and people who should know better insist upon giving them money and clothing, which they generally employ in a very questionable manner. There is one professional beggar in this city who makes from ten to fifteen dollars per day, and who is a public charge, as he goes to the dispensaries, and obtains advice and medicine for himself and family.

The State Board of Charities should enact very strict laws in the workhouses established for the care of vagrants, compelling each inmate to earn his bread literally by the sweat of his brow, and, moreover,

* Extract from the Tenth Annual Report of the State Board of Charities of the State of New York, relating to the Causes of Pauperism, by Charles S. Hoyt, Secretary of the Board.—State Documents, 1877.

making payments for extra labor performed, thereby encouraging those whom circumstances may have forced into the poor-house. But the more important remedies which are suggested by the report refer to the removal of the children from the alms-houses, and to the prevention of the pauperizing influences with which they are surrounded. The control of the hereditary influences has its only hope in the gradual, persistent, and efficient moral, intellectual, and religious education of the depending classes.

POLICE RAIDS ON HOUSES OF PROSTITUTION.

Every little while we hear of a descent by the police upon what are called disorderly houses. The female inmates are not unfrequently marched through the streets half clad, confined in cells over night, and paraded in court the following morning before some police justice, who fines the malefactors and releases them. We have always failed to see the utility of this measure, either in the light of a prevention or a cure of prostitution. There is a good deal of sentiment concerning this question which is allowed to run into a wrong channel. We cannot imagine anything more pitiable in the brutal exercise of civic authority than the forcible dragging of poor wretches from their dens and inflicting upon them a punishment which is as senseless as it is unjust. The control of prostitution is a question to which the best minds here and abroad have devoted much thought and study, but as yet no plan has been recommended which promises any positive results. We cannot see why the police should be allowed to commit outrages, even upon prostitutes, under the plea of reforming them. The account of a recent raid by the police is but a repetition of former ones, and is full of those details of injustice, indecency, and inhumanity which cause us to blush for the advancing civilization.

Reviews and Notices of Books.

HEADACHES, THEIR NATURE, CAUSES, AND TREATMENT. By WILLIAM HENRY DAY, M.D., Member Royal College of Physicians, London, etc. Philadelphia: Lindsay & Blakiston, 1877. 12mo, pp. 308.

This is a carefully written and practical treatise upon one of the most common and yet most intractable maladies with which the human race is afflicted. Our author brings to the discussion of the subject a full appreciation of the latest views concerning the physiological and pathological significance of the various cerebral processes which are associated with the general term headache. The different varieties are as simply defined as circumstances will admit, their peculiarities intelligently described, while the treatment suggested is in full accord with the most advanced knowledge of functional as well as organic disorders of the cerebrum. The chief value of the work consists in the wealth of resources at the command of the author, and the practical value of his therapeutical suggestions.

Reports of Societies.

AMERICAN GYNECOLOGICAL SOCIETY.

Second Annual Meeting.

WEDNESDAY, MAY 30TH.—FIRST DAY.—MORNING SESSION.

THE American Gynecological Society convened in the city of Boston, May 30, 1877, and was called to order at 10 A.M. by the President, DR. FORDYCE BARKER, of New York.

DR. D. H. STORER, of Boston, delivered the address of welcome.

The following gentlemen were received as members by invitation: Drs. O. W. Holmes, C. Ellis, J. P. Reynolds, and F. Minot, of Boston; G. Kimball, of Lowell; B. E. Cotting, of Roxbury; E. H. Trenholme, of Montreal; J. C. Dalton, of New York; John Scott, of San Francisco; T. M. Reamy, of Cincinnati; and G. J. Garrigues, of Brooklyn.

Dr. Storer offered the facilities of the Medical Library to the members and invited guests.

The first paper for the session was read by DR. JAMES R. CHADWICK, of Boston, and entitled

A NEW THEORY AS TO THE FUNCTION OF THE THIRD SPHINCTER ANI, SO CALLED.

The so-called third sphincter was a thick bundle of muscular fibres, encircling the rectum spirally about three or four inches above the anus. Its function was believed to be simply to further the progress of excrementitious matter and not to retard it.

The second paper was read by DR. JOHN BYRNE, of Brooklyn. on

EXCISION OF THE CERVIX UTERI: ITS INDICATIONS AND METHODS.

Dr. Byrne preferred to use the word excision rather than the word amputation. He first gave a historical sketch of the operation, and then passed to the consideration of the diseases which called for its performance and the means to be employed.

The diseases were considered under the five heads laid down in Dr. Thomas's work on Diseases of Women. The removal of the cervix, or such portions as could be removed with safety, was strongly urged in the treatment of malignant disease. The écraseur was regarded as not being always a reliable safeguard against the occurrence of hemorrhage; there was danger of opening into the peritoneum if an attempt was made to remove the cervix close to the vaginal junction; its use was liable to be followed by septicæmia; and its work was bungling, unscientific, and unsurgical.

The use of the galvano-cautery was discussed at great length, and its advantages fully pointed out. If hemorrhage had followed its use, it was believed to depend upon the operator and not the operation, and occurred because the operator worked too fast and used a wire which was too much heated. The stump should be carefully seared.

With regard to cicatricial contraction following the use of the galvano-cautery, Dr. Byrne believed that it rarely occurred, and never as the direct consequence of excising the cervix by that means; that that troublesome condition was much less likely to follow its use than when the operation was performed by any other method; and that, if cicatricial contractions were almost constant, the method of removal of the

cervix by means of the galvano-cautery was to be preferred to all others in the treatment of malignant disease, because the hot wire produced an effect which extended into the tissues beyond the point of operation. The galvano-cautery was regarded as infinitely safer, and by far the most thorough and radical in its curative tendency of any means that could be employed in the treatment of cancerous disease.

Dr. Goodell, of Philadelphia, remarked that he was decidedly in favor of using the galvano-cautery in performing amputation of the cervix, but his experience with the hot wire had not been so favorable as that given by Dr. Byrne. The only fatal cases which he had had in removal of the cervix had been after the performance of the operation by means of the hot wire, and yet he preferred its use. The fatal cases he could not use as an argument against the means, because they either could not be attributed directly to the operation, or, being attributed, formed no larger percentage of unfavorable results than might be expected from any other method.

With regard to occlusion of the cervix he had not seen it occur after the use of the écraseur or galvano-cautery, but he had seen it occur after the use of a sponge tent and after the use of nitric acid. He agreed with Dr. Byrne that if only partial removal of the cervix could be effected in malignant disease the operation should be performed. He regarded the term cancerous cachexia as a misnomer. He had repeatedly seen it clear up after scraping the diseased surface, and had come to regard it as dependent upon local irritation and not systemic poisoning, and it was not to be regarded as a contraindication to the performance of the operation. One reason why the use of the cold wire was less liable to be attended with hemorrhage was because the mucous membrane could be stitched over the stump so as to heal in that manner instead of by granulation, and the pressure thus produced would prevent secondary hemorrhage.

REPORT ON THE CORPUS LUTEUM.

Dr. John C. Dalton, of New York, presented an elaborate report on the Corpus Luteum, in accordance with a resolution adopted at the first annual meeting of the society. The report embraced observations made upon thirty-two sets of specimens sent him by medical gentlemen, in all but two of which the date of the last menstruation or pregnancy was known with reasonable certainty. Some were cases in which menstruation had been suspended from illness or otherwise for a considerable time, but nearly all were of value, in one direction or another, for the purposes of the report. The whole number comprises eight cases of death in non-pregnant women, within the four weeks, of a regular menstrual interval; six cases where menstruation had been absent from five to eleven weeks; six where it had been absent from four months to a year: and two cases in which it had been absent for six years and over; also four cases of abortion from the third to the sixth month; and six cases from one to eight days after delivery at the full term.

The report was divided into two sections: *First*, the Corpus Luteum of Menstruation; and *second*, the Corpus Luteum of Pregnancy. A minute account was then given of the changes which took place in a corpus luteum from the commencement of its formation until its disappearance. The description was amply illustrated by plates made from specimens, and by drawings upon the board. One corpus luteum was described which was removed from the body of a living woman twenty days after the termination of the last menstrual epoch. The deduction was drawn that there was some direct connection between the rupture of a Graafian follicle, with the formation of a corpus luteum, and the function of menstruation.

There were six cases which presented certain anomalies:

1. Menstruation without ovulation. Four months with regular menstrual epochs, and yet no formation of a corpus luteum.
2. Formation of corpus luteum without central clot.
3. Hemorrhage into or around Graafian follicle without formation of corpus luteum.
4. Blackish discoloration in and about the corpus luteum instead of disappearance of color.
5. Gelatinous and fibrinous exudation from morbid causes into the interior of the Graafian follicle, producing solid tumors.
6. Saccular degeneration of the Graafian follicle. This was the only structure in the ovary which deserved the name of false corpus luteum. The last six cases illustrated the changes which took place during pregnancy, and received but slight notice in the abstract of the report given.

Dr. Dalton acknowledged the receipt of material from Drs. Weir, Howe, L. A. Stimson, Oppenheimer, McLane, Blauvelt, Jayne, Vanderpoel, Jr., Beckwith, Whitall, Kelly, Huber, McL. Hamilton, Cushman, Finnell, and Spaulding, of New York; Skene, of Brooklyn; Schenck, of Long Island; Treadwell and Chadwick, of Boston, and Trew, of Ohio.

On motion made by Dr. Goodell, the thanks of the Society were extended to Dr. Dalton for his admirable report, and the paper was referred to the Committee of Publication.

After the appointment of the Nominating and Auditing Committees, the Society adjourned to meet at 3 P.M.

First Day.—Afternoon Session.

The Society was called to order at 3 P.M. by Vice-President Dr. Byford, of Chicago.

The first order of business was the reading of a paper on

DILATATION OF THE CERVIX UTERI FOR THE ARREST OF UTERINE HEMORRHAGE, BY DR. GEORGE H. LYMAN, OF BOSTON.

The Doctor wished to bring forward a single point, namely, that dilatation of the cervix uteri was a valuable means for arresting uterine hemorrhage, and related the history of cases which had led him to that conclusion.

In the first case, although the free dilatation of the cervix did not remove the small fibroid from the anterior lip, yet the hemorrhage was immediately controlled. In the second case there was, after full dilatation, no discoverable cause whatever for the hemorrhage, and yet a menorrhagia and metrorrhagia which had existed for four years was at once controlled, and did not return. The theory was that the dilatation removed the constriction at the internal os not merely by making pressure upon the mucous membrane, but by an effect produced on the deeper tissues, and thereby relieved the congestion above the part constricted. Was it not possible that we had been substituting cause for effect, and was it not possible that hyperplasia of the organ and of its lining membrane was the consequence of constriction of the cervical vessels, as a result of the moderate constriction of the circular fibres surrounding the internal os? The paper was intended to be simply suggestive, and in all the cases the dilatation had been made for purposes of diagnosis, but with the result mentioned.

Dr. D. H. Storer, of Boston, referred to cases in which uterine hemorrhage had been promptly and permanently arrested by dilatation that had been instituted for diagnostic purposes.

Dr. Wilson, of Baltimore, remarked that he had repeatedly observed the advantage afforded by the use of tents in arresting uterine hemorrhage, and he regarded Dr. Lyman's explanation as very rational.

Dr. A. H. Smith, of Philadelphia, remarked that he had seen cases in which the patient had suffered for years with uterine hemorrhage, and had been relieved entirely by the single application of a sponge tent, especially when the hemorrhage was attended with much enlargement of the uterus. There was one caution to be given, namely, to be correct in diagnosis, and exclude malignant disease.

Dr. John Scott, of San Francisco, sustained the remarks of Dr. Smith regarding the exclusion of malignant disease before employing the sponge tent, and suggested as an adjuvant to Dr. Lyman's plan of treatment, after the cavity had been fully dilated, to use injections of hot water (110° to 115° F.), introduced with a Davidson's syringe, for the purpose of washing out all débris which might remain, and at the same time the hot water had an admirable effect in constricting the vessels. The introduction of iodine was also suggested.

Dr. Goodell, of Philadelphia, suggested that there was another reason, beside those mentioned, why dilatation with a sponge tent arrested the hemorrhage, and that was, when the tent was removed it brought away the cause entangled in its meshes; the little fungoid growths, or perhaps an undiscovered polypus. He related cases in confirmation of this view.

Dr. Trenholme, of Montreal, remarked, in corroboration of Dr. Lyman's view regarding the *modus operandi* of arresting uterine hemorrhage by dilatation of the internal os, that he had accomplished the same thing by making free incisions through the circular fibres of the cervix from the internal to the external os.

Dr. Lyman remarked, with regard to diagnosis, that of course no one would be so rash as to place a sponge tent in a uterus which was the seat of malignant disease. With regard to the sponge tent bringing away morbid growths which had given rise to the hemorrhage, he could only say that he always employed the *laminaria* tent; consequently nothing was caught in its meshes.

THE PRINCIPLES OF GYNECOLOGICAL SURGERY APPLIED IN OBSTETRIC OPERATIONS.

Dr. A. J. C. Skene, of Brooklyn, read a paper upon the above subject, in which was set forth the advantages derived from the use of Sims's speculum in performing the operation of craniotomy, returning a prolapsed funis, introducing Barnes's dilators, removal of the ovum in cases of abortion, and in the management of arm and shoulder presentations.

Dr. Noeggerath, of New York, regarded the suggestions contained in the paper as valuable, especially with reference to the management of prolapsed funis and the introduction of Barnes's dilators. With reference to craniotomy, he had not performed the operation during the last fifteen years, for we had a better method of effecting delivery, namely, by the use of the cephalotribe and the cranioclast. He did not think that the new method of delivery suggested by Dr. Skene was applicable in connection with the use of those instruments, for the reason that the space between the os coccyx and the symphysis pubis would be diminished by the speculum, and because all the space possible was necessary in order to properly depress the handles of the instrument, especially when the head was to be seized above the pelvic brim. If craniotomy was to be performed instead of cephalotripsy and the use of the cranioclast, then the suggestions made by Dr. Skene would be valuable.

Dr. J. P. Reynolds, of Boston, gave his assent to the remarks made by Dr. Noeggerath regarding the use of the cranioclast and the cephalotribe, and expressed his surprise at the position of the author of the paper in advancing any modification of the old method of craniotomy. When it was remembered that Braxton Hicks had brought a head safely through a pelvis with an antero-posterior diameter of only one and a half inches, we had said all that could be reasonably asked in the operation.

Dr. W. T. Lusk, of New York, called the attention of Dr. Reynolds and Dr. Noeggerath to the fact that when the cephalotribe was used it was preceded by perforation, and that when the cranioclast was employed it was necessary to disarticulate the bones of the skull before the instrument was applied, and therefore in both operations the suggestions made by Dr. Skene could be made available.

Dr. John Byrne, of Brooklyn, remarked that he did not think Dr. Skene's paper had any reference to what method should be adopted in the reduction of the size or in the extraction of the child's head, but it simply made suggestions regarding the best manner of facilitating manipulation in obstetric operations; and in that respect he regarded the suggestions as valuable.

Dr. Skene remarked that he had not thought of disposing of two most valuable instruments, but at the same time thought there were cases in which the narrowing was so marked that, although it might be possible to drag the head of the child through, it was less surgical than to facilitate the removal of the bones by the use of the speculum. He thought the operation of craniotomy would continue to be performed, although we had the new instrument. With regard to narrowing the space by the use of the speculum, that objection was not valid, and Dr. S. believed that it gave instead of taking from.

EXCISION OF THE CERVIX UTERI.

The discussion on Dr. Byrne's paper was renewed at this hour, and Dr. John Scott, of San Francisco, remarked that the first thing to be established was the justifiableness of the operation in any given case. He was of the opinion that pure and simple hypertrophic elongation of the cervix was of rare occurrence, and that, in general, if the real pathological conditions were taken into account, many cases would be eliminated in which the operation had heretofore been performed. Reference was then made to the proof given by Dr. Emmet that laceration of the cervix was one of the dangerous factors in producing hypertrophy and an appearance which in many cases had been regarded as cancer, and had been subjected to excision. With regard to the mode, he had found no difficulty in operating with the scissors, and usually succeeded in getting union by first intention, if the operation was properly performed; the dangers from secondary hemorrhage were very few. His experience did not accord with Dr. Byrne's, for he had seen cases in which the galvano-cautery had been employed, and in which the operation had been followed by the most marked constriction. The thing was in a nutshell: if the cervix was removed by means of the galvano-cautery the stump must heal by granulation; granulation must be followed by cicatrization, and cicatrization must be followed by contraction. Dr. Scott

believed that amputation of the cervix, at best, was only mutilation, because it left the organ without support, and certainly not in a favorable condition for the use of a pessary. It removed the hypertrophy for the time being, but Dr. Scott maintained that the hypertrophy sooner or later would return.

Dr. Byford, of Chicago, remarked that he could endorse much that Dr. Scott had said with reference to conservative surgery, but that the particular point upon which he wished to speak was with reference to amputation of the cervix uteri when the seat of malignant disease. He was a strong advocate of the operation, not for the purpose of curing the patient, but for the purpose of giving her relief from many distressing symptoms. He regarded the cancerous cachexia as a species of septicæmia. In cases in which all the diseased tissue could not be removed by amputation, the operation could be supplemented by scraping, and he did not hesitate to scrape into the deeper tissues. With regard to the means, he strongly inclined to the use of the galvano-cautery. He could not help believing that contraction might occasionally follow any means of operating which might be employed.

Dr. Noeggerath, of New York, closed the discussion by saying that neither Dr. Byrne nor himself had amputated the cervix for fissure or laceration. He had operated thirty-five times with the galvano-cautery, and six times with the knife and scissors. Twenty-five comprised that class of diseases called areolar hyperplasia, simple hypertrophy, etc. Eighteen were cases of malignant disease.

Sequelæ.—Hemorrhage very severe in two cases after the use of the knife and scissors. Secondary hemorrhage after amputation with heated wire in two cases. Of the eighteen cases of malignant disease eight had no relapse up to the present time, and one was operated upon six years ago, and another four years ago. In seven cases pregnancy had followed amputation of the cervix. The danger of constriction after the operation by means of the heated wire he believed to be unduly exaggerated. It had occurred but *once* in the thirty-five cases. He avoided the écraseur because of the danger of opening the cul-de-sac.

The Society then adjourned to meet at 10 A.M., May 31, 1877.

Thursday, May 31.—Second Day.—Morning Session.

The Society was called to order at 10 A.M. by First Vice-President Dr. Byford, of Chicago.

REPORT ON THE MUCOUS MEMBRANE OF THE UTERUS.

Dr. Engelmann, of St. Louis, reported that sufficient material had not been obtained to enable him to make a full report. Several specimens from patients suffering with the so-called membranous dysmenorrhœa had been sent, but thus far they had all proved to be simple casts of the uterus; that is, the superficial layers of the mucous membrane with the glands and blood-vessels belonging. He had not, thus far, found any evidence to controvert his former views concerning the mucous membrane of the uterus during menstruation, namely, that it was not shed, although the uppermost layers were exfoliated.

Additional specimens were solicited.

ON THE NECESSITY OF CAUTION IN THE EMPLOYMENT OF CHLOROFORM DURING LABOR.

Dr. W. T. Lusk, of New York, read a paper upon the above subject, and presented the following propositions:

1. Deep anæsthesia, carried to the point of complete abolition of consciousness, retarded, sometimes suspended, uterine action. It was that fact which made it so valuable in many cases, but safety required that the woman should come partially from under its influence before completing labor, in order to avoid hemorrhage.

2. Chloroform, when given in the usual obstetric fashion, might, in exceptional cases, so far weaken uterine action as to create a necessity for resorting to ergot and the forceps.

3. Women in labor did not enjoy any absolute immunity from the deleterious effects of chloroform. A number of cases were related, and the Doctor was not willing to believe they were exceptional.

4. Chloroform should not be given in the *third* stage of labor.

5. The more remote influence of large doses of chloroform during labor upon the puerperal state was a subject which called for farther investigation and inquiry.

Dr. Wilson, of Baltimore, remarked that the cases referred to by Dr. Lusk were the first he had heard reported of death from chloroform occurring during parturition. He had used chloroform between two and three thousand times, and with not a single bad result. He always preceded its inhalation by the administration of a dose of some alcoholic stimulant.

Dr. A. H. Smith, of Philadelphia, employed Squibb's ether in ordinary obstetric practice, because it possessed all the advantages of chloroform and was absolutely safe. There were cases in which he wished to produce absolute relaxation and loss of consciousness, and rapidly—for example, for the purpose of instantly carrying the finger to the fundus and removing an ovum, in cases of hemorrhagic abortions, then chloroform was the better agent, and for the short time the patient was under its profound influence, it was ordinarily safe.

Dr. Gordon and Dr. S. H. Tewksberry, of Portland, Maine, were elected members by invitation.

THE PRESIDENT'S ADDRESS.

The hour of 11 A.M. having arrived, the President, Dr. Fordyce Barker, of New York, delivered an able and interesting address, in which he paid a high compliment to the Committee of Publication and to the Secretary on his indefatigable zeal and work upon the volume of Transactions, which embraced the labor of the first session of the Society. Fitting reference was made to the death of two Fellows—Dr. Buckingham, of Boston, and Simon, of Heidelberg. Certain practical suggestions were made with reference to the policy of the Society in the future. There was no necessity for haste in filling the list of members. The character of the candidate should be an important consideration. None should be elected except those who had recognized personal and professional eminence. Honorary membership should not be conferred until age exempted from active work, except in instances in which men had made contributions of undoubted value to this department, and which were worthy of special recognition. All should be active working members. It was suggested that a bibliography be added to each volume of the Transactions, which would enhance the merit of the book and increase its sale. Papers should be ready for print at the time they were read; excuses for delay should not be received. Dr. Barker then passed to the consideration of the main subject embodied in his address, namely,

MEDICAL GYNECOLOGY.

The claims of that department in gynecology were presented in a clear, forcible, and convincing manner, and in no way detrimental to the surgical department, through which so much has been done for the relief of suffering woman. The blessings and benefits which had been conferred by ovariotomy could not be overestimated, and the same was true of many other surgical operations for the relief of conditions peculiar to the female sex. It was not the province or the wish of the President to detract in the least from the merit to which they were entitled. But there was a field which related to medical gynecology, and which had remained comparatively uncultivated. While there was so much uncertainty regarding many questions in pathology, etiology, and the exact value of symptoms, it was believed to be better not to perform operations, which at best were problematical, but to study the cases and determine, if possible, whether the symptoms could not be removed by correcting functional derangements of the pelvic organs or of certain organs in other parts of the body. Since 1845, immortality had been sought by 142 men in the invention of a pessary, when doubtless more would have been accomplished for the relief of suffering and the preservation of the body had the same energy been displayed in the study of the circulatory, nervous, and digestive apparatuses of the body in their relation to diseases of the pelvic organs. Several cases were reported, and one in which, from psychical influences alone, a cure had been effected as successfully as could have been done by extirpation of the ovaries. "Medical gynecology should bear as important a part in this Society as uterine surgery."

On motion of Dr. Goodell, of Philadelphia, a vote of thanks was tendered the President for his most admirable address.

THE INTRA-UTERINE TREATMENT OF FLEXIONS.

Dr. Ely Van de Warker, of Syracuse, submitted a paper on the above subject, which was read by Dr. Chadwick.

Dr. Van de Warker's paper was a clear and candid review of the history of the use of the intra-uterine or stem-pessary, the views of the leading gynecologists all over the world at the present time regarding the propriety of its employment, and a recital of the conditions which warranted its use, and the circumstances which contraindicated its application. It was not claimed as a means of cure, but for the relief of symptoms it was believed to be as safe as any other mechanical support.

After the reading of the paper, Dr. Chadwick exhibited a pessary which did not involve any new principle, but had a general plan of support simpler than some others.

The discussion on the paper was opened by Dr. E. R. Peaslee, of New York, who remarked that he was opposed to the use of stem-pessaries in the treatment of retroflexion, when other means would answer, but he was not opposed to their use in anteflexion under some particular circumstances. Retroflexion, he believed, could be cured by instruments which did not enter the cavity of the uterus. There was no possibility of changing the anteflexed uterus into the upright position, and keeping it exactly in place, except by the use of the stem-pessary. But was it necessary to keep the uterus precisely in one position? If so, the stem-pessary was a necessity. Was it necessary, in order to remove all the symptoms dependent on anteflexion, to place the uterus in a certain position and retain it exactly in that position? In most cases he thought not. Restoration to the first degree of anteflexion was all that was required to remove the symptoms in probably forty-nine cases out of fifty. Such result could be accomplished by a more simple apparatus than the stem-pessary, and one perfectly unobjectionable. There were many exceptions to this. As a general proposition it might be stated that, if a woman had no other symptoms except dysmenorrhœa, perhaps sterility, and she was relieved from all congestion at every period, a stem-pessary might be used with safety. In such cases he would use the stem if necessary, but before using it he would resort to another form of instrument. Dr. Peaslee then spoke of the different forms of stem-pessary employed, and described an instrument which he had devised for the treatment of anteflexion, and also for retroflexion. In the construction of pessaries he had been guided by three principles: 1. To obtain an instrument which would not make undue pressure under any circumstances; 2. To make use of an instrument which would not be a barrier between man and wife; and 3. To secure an instrument which could be removed and replaced by the patient herself. These three things he had been able to accomplish by means of a circular instrument constructed of tempered whalebone.

Dr. T. G. Thomas, of New York, remarked that, while he would admit the stem-pessary should have a place in gynecic medicine, he should be very sorry to have Dr. Van de Warker's paper go out from the Society uncontradicted. Dr. Thomas believed that there was an inherent danger attendant upon the use of any instrument which was left in the uterine cavity. Again, the fact was overlooked that a mortality of 1 in 100 of such cases was very much greater than 1 in 4 cases of ovariotomy. Dr. Thomas began the use of the stem in 1855, and used it largely, but soon gave it up, for the reason he learned that every woman who came to his office, and had one introduced into her uterus, went away carrying with her an element of danger which might end in the sacrifice of her life. Dr. Thomas believed that, in spite of all precautions, the use of the stem would, in a certain proportion of cases—not large—be followed by pelvic peritonitis. He had not lost a patient from that cause, but had had a number of cases in which peritonitis had been set up, which came very near terminating fatally. Dr. Thomas did not agree with Dr. Peaslee in his statement that there was no instrument which would keep an anteflexed uterus in its place except a stem-pessary. For the proper treatment of congenital anteflexion a surgical procedure was required; but a vaginal pessary, with an elbow, rendered much assistance in the after-treatment.

Dr. Noeggerath, of New York, moved that the discussion be continued at 3 P.M., after which the Society adjourned to meet at that hour.

Second Day.—Afternoon Session.

The Society was called to order at 3 P.M. by Dr. Byford, Vice-President.

DISCUSSION ON INTRA-UTERINE TREATMENT OF FLEXIONS.

Dr. Noeggerath opened the discussion, and remarked that he was an advocate of the use of the stem-pessary for the treatment of symptoms coincident with dislocation of the uterus, and not for the cure of the dislocation. He employed it chiefly in anteflexion—very exceptionally in retroflexion. He used the stem-pessary constructed of lead, and having wings of hard rubber, and had not met with serious acci-

dent in its employment, except in three cases, during the past fifteen years. He thought that one death in 200 cases was a sufficiently large percentage, and claimed that such a percentage of fatal cases might follow the use of any surgical means that could be employed for the relief of the same symptoms. It must be remembered that there was no application which was made to the uterus, no matter how innocent, but what might be followed at times by bad results. He always introduced the stem at the patient's house, and under the influence of an anæsthetic. He sometimes employed a pessary to diminish the size of the canal, and yet the dysmenorrhœa was relieved, showing that it was not the narrowness of the canal which caused it. The severity of the dysmenorrhœa was not in direct ratio with the acuteness of the angle of flexion.

Dr. Goodell, of Philadelphia, always employed the stem-pessary with trepidation, and yet he did not feel willing to sweep it from the field of therapeutics. Formerly he was of the opinion that the stem was a good instrument to watch. Since that time he had changed his views somewhat regarding the treatment of flexions, and thought there were certain cases which could not be treated well otherwise. He commonly employed Chambers's instrument, always attached a string to it, so that it could be removed at any time, and always made exact measure, so that the pessary was half an inch shorter than the length of the cavity of the womb. He did not wish, by any manner of means, to be understood as saying that the stem was an innocuous instrument.

Dr. Albert H. Smith, of Philadelphia, remarked that, according to his experience, anteversion of the uterus was seldom found independent of some pathological condition, something which had affected the integrity of the anterior wall. He had therefore found that it was only very rarely that a pessary was tolerated until that condition was removed. He regarded anteversion as the normal position of the uterus. In retroversion we had a condition which the pessary was specially adapted to relieve. He was not able to endorse the encomiums given to the stem-pessary by the author of the paper. With regard to congenital flexions, he had not seen one but what could be traced to an appreciable cause, which operated first to produce displacement, and subsequently flexion.

Dr. W. T. Atlee, of Philadelphia, remarked that he had had no experience in the introduction of pessaries, but that he had had a large experience in their withdrawal. He had been able to remove the symptoms in most of his patients without the use of pessaries, and when that could be done he was satisfied without their use. With the uterus and pelvic organs in a healthy condition, a change in position of the uterus was of no significance whatever, and there was no use of an instrument to keep it in a certain position.

Dr. Wilson, of Baltimore, remarked that he endorsed the remarks of Dr. Atlee, and that he had but little success in the treatment of uterine displacements except in retroversion. He had never seen a pessary with which he could benefit a case of anteversion. Twelve years ago he used the stem-pessary; but he had since discarded it, and never expected to use it again. He was quite confident that there was no such condition as congenital anteversion. He believed that the larger proportion of cases of dysmenorrhœa depended on obstruction of the internal os, and that it was most successfully relieved by making an incision backward from the internal to the external os.

The discussion was continued by Drs. Byford, Garrigues, Skene, Peaslee, Jackson, and Wilson.

The Society adjourned to meet at 10 A.M. Friday, June 1, 1877.

Friday, June 1.—Third Day.—Morning Session.

The Society was called to order at 10 A.M. by the President.

The first paper was read by Dr. William Goodell, of Philadelphia, on

VAGINAL OVARIOTOMY.

His case was the eighth on record, and all occurred in this country. The first case was recorded by Dr. T. G. Thomas, of New York. The following were some of the conclusions reached by the author of the paper: 1. Removal of the fluid from the cyst by means of the aspirator was not without danger. 2. Never tap a polycyst. 3. The case showed that thorough cleansing of the abdominal cavity was required. 4. There was great need of drainage in some cases of ovariotomy.

The paper was discussed by Drs. Kimball, of Lowell; Noeggerath, of New York; Chadwick, of Boston; Lusk and Peaslee, of New York.

IS THERE A PROPER FIELD FOR BATTEY'S OPERATION?

Dr. Robert Battey, of Rome, Ga., discussed the above question, and believed his operation to be justifiable, as follows:

First. In those cases in which there was absence of the uterus, and life was injured and health destroyed by reason of the deficiency, removal of the ovaries was at once possible and the only means of affording permanent relief.

Second. In cases in which the uterine cavity, or vaginal cavity was obliterated and could not be restored by surgery, if grave symptoms were present, the removal of the ovaries became the last and only resort, and might possibly be invoked in the case.

Third. In cases of insanity and epilepsy dependent upon uterine and ovarian disease, the operation was justifiable as a last resort, and when every other means of cure had utterly failed.

Fourth. In cases of long and protracted physical and mental suffering dependent upon nervous and vascular conditions and perturbations which have resisted all means of cure, the justifiableness of the operation is to be conscientiously considered by the practitioner in each case.

The paper was discussed by Drs. Trenholme, of Montreal; Peaslee and Noeggerath, of New York; Parvin, of Indianapolis; Goodell, of Philadelphia, and Skene, of Brooklyn.

Dr. H. I. Bowditch, of Boston, was made member by invitation. The Society then adjourned to meet at 3 P.M.

Third Day.—Afternoon Session.

The Society was called to order at 3 P.M. Dr. Byford, Vice-President, in the chair.

SUBSULPHATE OF IRON AS AN ANTISEPTIC IN THE SURGERY OF THE PELVIS.

Dr. Wilson, of Baltimore, gave an abstract of his paper upon the above subject, in which he maintained that the subsulphate of iron was one of the most valuable antiseptics we possessed, in all surgical operations where union by first intention was not expected. For example, in ovariotomy, when there had been ex-

censive adhesions and considerable oozing from the surface after the adhesion had been separated, if the surface was liberally coated with the subsulphate of iron, one part to three of water, after all hemorrhage had been checked, used as an antiseptic and not as a styptic, there would be less of septicæmia than we now see. When the iron was applied to the cavity of the uterus he always combined it with glycerine instead of water. In all severe operations about the vagina, for hemorrhoids, etc., he recommended the dilute solution of Monsel's solution as an antiseptic.

Dr. Parvin, of Indianapolis, reported a case of

TETANUS AFTER OVARIOTOMY.

He had been able to find only eight other cases on record, and his own was the only one on record in the United States. Since arriving in Boston he had learned of another case which occurred in the practice of Dr. Kimball, of Lowell. There was nothing peculiar either in the history of his case or the condition found at the operation. There were extensive adhesions, and about two inches of the omentum were removed. On the fifth day, the case having progressed favorably up to that time, symptoms of tetanus developed, and the patient died the following day.

Dr. Kimball, of Lowell, gave a history of his case. There was nothing peculiar in it; the tumor weighed fifty or sixty pounds, and a large amount of the omentum was removed. Tetanus developed on the twelfth day, and the case terminated fatally.

Dr. Chadwick, of Boston, referred to a case of tetanus following an operation for removal of the uterus with a large fibroid.

SARCOMA OF THE OVARIES.

Dr. W. T. Atlee, of Philadelphia, reported four cases of sarcoma of the ovaries. The third case was one which had already been reported by Dr. T. G. Thomas, of New York, in the *Am. Journal Med. Sciences* for January, 1876, as a case of adenoma of the ovaries. Attention was directed to the similarity of the four cases, as follows: All occurred in married ladies of about the same age—thirty to thirty-two—who had borne children—one to three—and began within twelve or eighteen months after the last parturition; all the tumors were of rapid growth, and had the peculiar feeling of an ordinary cirrhosed liver; all were sulcated, with fan-shaped attachment of the pedicle; all were free from adhesions; all were distinctly pedunculated; and all were free from uterine complication.

Early diagnosis followed by early removal, and the use of arsenic in small doses long continued, offered the most reliable means for effecting a cure.

The paper was discussed by Drs. Jackson, Peaslee, and Engelmann.

Dr. Engelmann inclined to regard the tumors reported as carcinoma; he judged so from the microscopical reports given.

Dr. Peaslee thought they might as well be called carcinomatous as anything. Three out of four microscopists who had examined the tumor reported by Dr. Thomas had recognized a malignant character, and he, therefore, could not see any propriety of reporting it as a case of adenoma.

Dr. George H. Lyman, of Boston, read a biographical sketch of the late Dr. Charles E. Buckingham, of Boston.

The following papers were read by title, and referred to the Publication Committee:

The Pathology and Treatment of Puerperal Eclampsia. By Prof. Otto Spiegelberg, of Breslau, Prussia.

The Relation existing between Pregnancy and Phthisis. By Dr. William L. Richardson, of Boston.

The Value of Electrolysis in the Treatment of Ovarian Tumors, as seen in the Light of Recent Experience. By Dr. Paul F. Mundé, of New York.

Congenital Absence and Accidental Atresia of the Vagina: Mode of Establishing a Canal and Effecting a Removal of Retained Menstrual Blood. By Dr. Thomas Addis Emmet, of New York.

The following officers were elected for the ensuing year:

For President—Dr. E. R. Peaslee, of New York.

For Vice-Presidents—Dr. William Goodell, of Philadelphia, and Dr. Isaac E. Taylor, of New York.

For Secretary—Dr. James R. Chadwick, of Boston.

For Treasurer—Dr. Paul F. Mundé, of New York.

Council—Drs. Atlee, of Philadelphia; Byford, of Chicago; Emmet, of New York; and Skene, of Brooklyn.

For Honorary Fellows—Dr. John T. Atlee, of Philadelphia, and Dr. John C. Dalton, of New York; Depaul and Paget, of France, and Scanzoni, of Germany.

For Resident Fellows—Dr. Gilman Kimball, of Lowell, Mass.; Dr. A. Dunlap, of Springfield, O.; Dr. A. Reeves Jackson, of Chicago, Ill.; Dr. Edward Wilson, of Philadelphia; Dr. H. J. Garrigues, of Brooklyn; Dr. John Goodman, of Louisville, Ky.; Dr. John P. Reynolds, of Boston; and Thaddeus A. Reamy, of Cincinnati, O.

The retiring President then delivered his address, and introduced the President elect to the Society. Dr. Peaslee responded to the remarks of Dr. Barker, and there being no further business, declared the Society adjourned to meet at Philadelphia on the second Wednesday in September, 1878.

Correspondence.

DILATATION OF ONE PUPIL FOLLOWING THE APPLICATION OF A BELLADONNA PLASTER.

To the Editor of The Medical Record.

Dear Sir:—I extract from my note-book the following:

"Mrs. W. applied a belladonna plaster yesterday upon her right side, the skin being somewhat irritated. As a result followed double vision and dilated pupil of the same side. To-day the right pupil is still one-third larger than the left. She removed the plaster yesterday."

This case may be added to the two on page 334, vol. xii., of the N. Y. Medical Record, and the one on page 397, vol. xii., of the same journal.

Respectfully,

F. A. Burrall, M.D.

28 West Eleventh St.

A Remedy for Bed-Bugs.—A correspondent writes to the *British Medical Journal* as follows: "The best remedy for bugs in hospitals is a bug-trap made by boring a series of holes in a piece of soft wood with a gimlet, and placing this under the mattrass of each cot. The piece of wood is to be placed periodically into a basin of boiling water. This is an Indian Hospital plan."

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending June 30, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
June 23.....	0	9	93	1	58	38	2
" 30.....	0	5	88	0	56	32	2

THE VIABILITY OF SPERMATOZOA.—A subscriber writes:—"Please inform me through the medium of THE RECORD, whether or not the spermatozoa of the spermatic fluid cease their active movement, or in other words, become lifeless, when subjected to the influences of an atmosphere of carbolic acid (gr. viii. ℥ i.) under the microscope, and greatly oblige, as I have not the means for determining the above fact."

[We are unable to give any positive information on this point. Will some of our readers answer the question?—ED.]

NOMENCLATURE OF SKIN DISEASES.—In the adoption of a nomenclature of skin diseases, Dr. L. D. Bulkley has generally followed the plan of the Germans, selecting, as far as possible, words derived from the Greek for the primary name of the disease, while secondary terms are given in Latin. The classification is not a new one, but it presents the entire subject in a concise, clear, and practical manner. Dr. Bulkley relates two cases of morphœa, with remarks on the disease and its differential diagnosis. Both did fairly under a mild mercurial ointment, gently and well rubbed into the diseased patches. Tonic remedies have been counselled, but with doubtful results. Iodine has been suggested, as the clinical features of the disease would imply a lymphatic disturbance; but nothing being yet known in reference to the etiology or pathology of morphœa, the treatment must be entirely empirical.

MOVEMENT IN THE TREATMENT OF FRACTURE OF THE EXTERNAL CONDYLE OF THE HUMERUS.—Dr. H. A. DuBois, San Rafael, Cal., writes: "In a recent case of fracture of the external condyle of the humerus I applied a felt splint, nearly straight (that being the easiest position), for three days, then with care bent the arm, and changed the splint to one bent at an acute angle, and kept thus alternating the position every two or three days for two weeks, when I resorted to passive motion without a splint. The fracture was well marked, and through the joint. Union had taken place in about twelve days, but the pain, which had been slight before, became after this time greater in making passive movements. Once a day I straightened the arm slowly, but firmly, and kept it in that position for five minutes, and then attached to the wrist a loop of rubber tubing, which passed around the shoulder and was attached to a loop of bandage, which had previously been passed around the other shoulder. In this way a steady pull was kept up for ten or fifteen minutes daily. In six weeks from the fracture all the motions are nearly normal, though the arm is still weak, the only deformity being a slight slipping up of the fragment, making the breadth at the elbow a little greater than natural. Early and steady movement, I believe, was first advocated by Dr. Bigelow, of Boston; and I would call attention to the fact that there is little pain until callus has been thrown out, and that then the movements must be persisted in if anchylosis is to be avoided, though giving a good deal of pain."

STATE BOARD OF HEALTH OF NEW JERSEY.—In compliance with the provisions of the act entitled, "An Act to Establish a State Board of Health," the Governor has appointed the following named gentlemen as Commissioners: Ezra M. Hunt, M.D., Metuchen; Theodore R. Varick, M.D., Jersey City; James M. Ridge, M.D., Camden; Cyrus Brackett, Prof. Princeton College, Princeton; Laban Dennis, M.D., Newark; Elias J. Marsh, M.D., Paterson; Ezra A. Osborn, Esq., Middletown. The Secretary of State and Attorney General are ex-officio members of the Board.

ON DERMIC MEDICATION.—Dr. G. P. Hachenberg, of Round Mount, Texas, writes:—"In 1852, I reported cases in the *Western Lancet*, on the treatment of certain forms of skin diseases by the dermic medication. The medicine indicated is made in the form of a solution, the woollen underclothes of the patient dipped into it, dried and well aired before wearing them. The perspiration of the skin will redissolve the medicine out of the underclothes, and its continued application to the skin will carry its characteristic effect with it, in many instances, with the same results as when the medicine has been administered hypodermically or through the alimentary channel. Its medicinal effects I have observed in many instances to be in proportion to the degree of perspiration.

This dermic medication is particularly indicated in the weak, either in the chronic or acute form of disease. There are classes of remedies that are particularly effective, administered in this manner, such as astringents, tonics, and sedatives. Indeed the whole range of the soluble salts can be used by this method of medication. For example, I have treated obstinate constipation with a saturated solution of sulphate of magnesia by the shirt; a chronic intermittent fever with a weak acidulated solution of quinine; neuralgia and hysteria with several of the sedative and antispasmodic salts—skin-diseases by alum, borax, chloride, and sulphate of potash, etc.; constitutional depression and paralysis by strychnine. The heroic treatment of using either lead or arsenic in this form I never attempted, believing them not void of bad effects, but I have used the soluble mercuries in some cases with satisfactory results. I have used solution of nauseants by the shirt in affections of the lungs and the mucous tissue in particular, with desired effect. Many of the excessive hemorrhagic and morbid exosmotic operations of the body can, in a great measure, be controlled by the alum-shirt, as colliquate sweats and diarrhœas, and even where the effusions are thrown into the cellular structure not caused by some serious organic disease.

DR. JAMES R. WOOD.—Professor Wood's specimens of lower jaws removed for phosphorous disease, and which were recently sent to the Surgical Congress at Berlin, have attracted a good deal of attention, and have reflected credit upon American surgery.

PENNSYLVANIA STATE SOCIETY.—The Twenty-eighth Annual Session of this society, held at Harrisburg, was, with the exception of the one in Philadelphia, the largest for many years. Many interesting papers were read. Dr. D. Hayes Agnew, of Philadelphia, is the President for the ensuing year.

Original Communications.

PNEUMONIC FEVER.

GROUNDS FOR CONSIDERING ACUTE PNEUMONIA AN ESSENTIAL FEVER, AND NOT PURELY A LOCAL INFLAMMATION.

By AUSTIN FLINT, M.D.

Acute pneumonia, in the nosological systems of the present, as of the past time, is placed among the local diseases; and in regard to certain questions, especially in relation to blood-letting, it has been, and is now, generally considered as the type of a purely inflammatory affection. The object of the paper which I shall submit to the Society is to show that this is a false view of its pathology, and that its proper place in nosology is among the essential fevers. That pneumonia is an inflammatory affection, I do not deny. It is the local manifestation, and furnishes the anatomical characteristics of a febrile disease, sustaining to the latter a relation analogous to that which the lesions of the solitary and agminated glands of the small intestines sustain to typhoid fever. I propose as a name for the disease pneumonic fever. This name, if it be established that the disease is not a purely local inflammation, is as appropriate as the name enteric applied to typhoid fever, or the name cerebro-spinal fever to the disease more commonly known as cerebro-spinal meningitis.*

I am perfectly aware of the duty of brevity in a paper to be read at a meeting of this Society, the sessions of which are short, and the number of papers submitted usually large. I shall present the grounds for considering pneumonia essentially a fever, and not purely a local inflammation, as concisely as possible, avoiding any discussion of the points which will be stated.

In order not to expose myself to the imputation of assuming to advance a doctrine altogether new, I wish to premise that the dependence of pneumonia on a morbid constitutional state is a view which, as I suppose, many, and perhaps most physicians hold. This view, indeed, is applicable to a considerable proportion of the diseases which are reckoned nosologically as local. Of late authors, Juergensen goes further than any with whose writings I am acquainted. This author holds the pulmonary inflammation to be merely the chief symptom of a constitutional disease; that the morbid phenomena are not due to the local affection; that a special cause is indispensable, and that pneumonia belongs to the group of acute infectious diseases.† These assertions are almost, if not quite equivalent to an enunciation of the doctrine expressed by the term pneumonic fever. The arguments offered by Juergensen apply fully to this doctrine; but there are cogent considerations to which he does not refer. In 1866 Dr. Wm. H. Draper, of New York, read to the Academy of Medicine a paper on the treatment of pneumonia, in which he maintained that the pulmonary lesion is a sequence, in point of time, of the pyrexia; that it represents a conservative process by which a *materies morbi* is eliminated from the circulation, and that there is presumptive evidence of the presence of a specific poison in the blood of persons suffering from this disease. I quote from his paper the following: "These considerations certainly lend support to the theory that pneumonia is something more than a local disease, and is rather an essential fever, having a characteristic lesion like small-pox or scarlet fever." * I have not taken pains to seek in medical literature for similar expressions of opinion. Doubtless they might be found; still, the fact remains, that in our systems of nosology, our treatises on pathology, our text-books of practice, our lectures on medicine, and in medical conversational intercourse, acute pneumonia is recognized as a purely local affection. It is, perhaps, superfluous to premise that by the term acute pneumonia I include only the so-called lobar form of the disease, the form distinguished by German writers as croupous, not embracing broncho-pneumonia nor embolic pneumonia.

The grounds for considering the disease an essential fever relate to its morbid anatomy, its etiology, its clinical history, and its treatment. Following this order, the points which I shall make I will embody, for the sake of brevity, in a series of simple statements or propositions.

1. In relation to the morbid anatomy of pneumonia, the quantity of exudation, amounting to from one to two pounds, if a single lobe be affected, and reaching four pounds if the affection embrace an entire lung; the probable derivation of this matter from the blood in the branches of the pulmonary artery; the removal of the exudation by absorption, leaving the air-vesicles intact; the extension over a lobe by degrees, the progress often being slow; the invasion successively of a second and a third lobe in a certain proportion of cases, and the laws of the disease, as regards the greater liability of the lower lobes, and of the lower lobe of the right lung—these are points which, to say the least, are suggestive of dependence on a constitutional morbid condition, the latter being essentially the disease. It is not easy to reconcile the pathological facts just stated with the doctrine that the products in pneumonia are the results solely of a local inflammatory condition; and if a prior constitutional condition be essential, in view of the symptoms of the disease, that condition is a fever. In some regards the anatomical characteristics of pneumonic fever bear a close analogy to those of typhoid fever.

2. Etiology furnishes support of the doctrine which I advocate in two points of view, namely:

First, the local affection is never produced by local causes; and, second, all the knowledge which we at present have of the causation is in favor of the primary action of the cause or causes being constitutional.

Acute lobar pneumonia is always developed irrespective of any extrinsic agencies acting directly upon the pulmonary organs. Agencies which it might be supposed, *a priori*, would be followed by the disease, fail to produce it. Contusions, however violent, and penetrating wounds of the chest, never give rise to acute lobar pneumonia. It does not follow the diffusion of pus from empyema or an hepatic abscess. Circumscribed gangrene of lung does not lead to it. In bronchitis affecting the small bronchial tubes, the inflammation may extend to certain lobules, producing local effects, however, quite different from the anatomical characters of lobar pneumonia, the latter never occurring, nor does it ever occur, as a sequence of

* The term *febris pneumonica* was used by the older writers, but without meaning thereby that the disease was essentially a fever. "Lung fever" is a popular term, formerly somewhat in vogue in some parts of this country.

† Ziemssen's Cyclopædia. American edition, vol. v., p. 144. The term *infectious* is to be understood as defined by German writers, namely, a disease produced by a special cause, or germ, which is capable of being reproduced or multiplied under favorable conditions, either within or without the body.

* Bulletin of the New York Academy of Medicine, vol. II, 1866.

acute pleurisy. Juergensen does not make too strong an assertion when he says that "croupous pneumonia can no more be produced by the excitants of inflammation than can the characteristic intestinal lesions of typhoid fever."

Pneumonia, as is well known, is not infrequently an intercurrent affection in the course of other essential fevers, namely, typhus and typhoid fever, measles, diphtheria, etc. In these instances the determining cause must be constitutional, and yet, as the affection is only an occasional complication, the determining cause involves something which does not necessarily pertain to these fevers. This something, it is reasonable to conclude, is pneumonic fever. Hence, it follows that pneumonic fever may be associated with other febrile diseases. The blending of different fevers may be considered at the present time as a well-established pathological doctrine. An example with which all of us are familiar is the typho-malarial fever.

It is evidence that pneumonia is a constitutional disease (and if so, it must be an essential fever), if it involves a specific causation. A specific cause, with our present knowledge, is not demonstrable; but this confession is to be made respecting other essential fevers—for example, malarial fever. A conclusion can only be reached by the logical force of facts. Certain of these facts belong to the morbid anatomy and to the clinical history. Etiological proof of a specific causation is afforded by the prevalence of the disease at certain seasons of the year, namely, the vernal months in this climate, and its comparatively infrequent occurrence at other seasons. Proof is also afforded by the fact that the disease is far more prevalent in some climates than in others. In our country it is vastly more frequent in the Southern than in the Northern States. Still further proof is afforded by the fact that, at certain times and in certain situations in the South, it has been known to prevail to an extent entitling it to be called an endemic. To these facts it is to be added that at different periods and places the variations of the disease as regards its phenomena and the rate of fatality, constitute a point of distinction from purely inflammatory affections, and affiliate it with the essential fevers.

3. Passing to the clinical history of pneumonic fever, the grounds for using this name instead of acute lobar pneumonia are hardly less substantial than those furnished by the etiology of the disease.

The chill, which is usually the first symptomatic event, is more pronounced than in the history of any purely local inflammatory affection. It is often as marked as in the cold stage of a paroxysm of intermittent fever.

The fever which follows quickly rises, and often in a few hours becomes intense. It is not uncommon for the temperature of the body to be five or six degrees above the normal limit in from four to twelve hours after the attack. Now, this cannot be a symptomatic fever, for within these periods, and often for two or three days, the pneumonic inflammation is so limited as not to furnish the distinctive and easily determined physical signs of the local affection. Contrast, as respects the intensity of the fever at the outset, pneumonic fever with acute pleurisy!

During the course of the disease, the fever, as represented by temperature and other symptoms, has no uniformity of relation with the pulmonary affection. It is impossible to determine by means of the thermometer and by the pulse, together with other symptoms, when the local affection has extended over an entire lobe, or whether more than a single lobe be involved. What is true of typhoid fever, in respect of the influence of the intestinal lesions upon the febrile phenomena, is equally true of pneumonic fever.

As in typhoid, so in pneumonic fever, defervescence is not determined by conditions which relate to the local affection. Defervescence sometimes begins and ends within twelve hours, or even less, and during this time the physical signs may show that no very marked change has taken place in the pulmonary organs. Pneumonic, like typhoid fever, ends from self-limitation—that is, it ends when the disease has finished its career. The duration of this career varies considerably, it is true, in different cases, but it is, nevertheless, self-limited. It is not uncommon for the career of the fever to end when there is much to be done in the way of resolution before the restoration of the normal pulmonary condition is complete.

The analogy to typhoid fever, which in several points of view is apparent, is further shown by the frequent occurrence in pneumonic fever of what are known as typhoid symptoms. It is true these symptoms occur in various diseases; but I am warranted in saying that they occur in pneumonic fever far more frequently than in any other disease, excepting, of course, typhus and typhoid fever. They certainly cannot be attributed to the interruption of the respiratory function, for they are rarely frequent in other affections which occasion greater disturbance of this function—for example, in pleurisy, capillary bronchitis, and asthma. They are undoubtedly due to the fever, irrespective of the pulmonary affection; and, in this point of view, pneumonic resembles typhoid fever.

Pneumonic fever differs from most local inflammatory affections, and resembles most of the essential fevers, in the fact that when the career of the disease has ended, there is no immediate tendency to a relapse. In a large number of cases which I have recorded, in not a single instance was a relapse noted; and I cannot recall an instance in my unrecorded experience. Is there not, in this fact, solid ground for the doctrine that the disease is an essential fever? Another striking fact may be mentioned in this connection, namely, the pulmonary affection never persists in a chronic form. The forms of chronic pneumonia, that is, ordinary and fibroid phthisis, are anatomically distinct from lobar pneumonia; nor does clinical experience substantiate the opinion held by some that phthisis is a sequel of acute pneumonia. It may be asserted of pneumonic, as of typhoid fever, that if death do not take place from either the disease, its complication, or its accidents, recovery follows without any risk of the persistence of the local affection in a chronic form.

4. The therapeutic influence of certain remedies and of antipyretic measures furnishes ground for the doctrine that acute lobar pneumonia is not purely an inflammatory affection.

As long ago as in 1861 I was led, by the results of the analysis of a considerable number of cases in which the sulphate of quinia was given to the extent of only 15 grains daily, to the conclusion that this remedy exerted a marked curative influence upon the disease. I can now bear testimony to the fact that, given in larger doses, namely, from 20 to 40 grains daily, this remedy, in a certain proportion of cases, renders the disease abortive, and that, when this result does not follow, the disease is often favorably modified in a greater degree than by smaller doses. There is reason to think that salicin, in like manner, has a curative influence; the relative value of this remedy not being, as yet, determined by clinical experience. Now, whatever efficacy belongs to these remedies, proceeds, evidently, not from any direct effect upon the pulmo-

nary affection, but from a controlling influence over the pyrexia; hence sustaining the doctrine that the disease is an essential fever. Juergensen, Liebermeister, and other German writers claim, as a conclusion based on clinical experience, that the reduction of the high temperature of the body by cold baths, employed as in cases of typhoid fever, lessens the severity of the disease and the rate of fatality from it. Accepting this conclusion, it is further evidence of the correctness of the doctrine.

Assuming that there are grounds sufficient for adding to the list of essential fevers *febris pneumonica*, or pneumonic fever, we may define the disease as follows:

It is a fever characterized anatomically by an abundant exudative deposit in the air-vesicles of a single lobe, or of two, and sometimes three, lobes of the lungs, with, in general, circumscribed bronchitis and dry pleurisy. It is a fever which rapidly reaches its maximum of intensity, and has a short career, the duration averaging about eleven days. It proves fatal chiefly in consequence of associated diseases, complications, or accidents, and the mode of dying is by asthenia. It is non-communicable, and depends on a cause, or on causes, specific in character, the nature of which is at present unknown, but having relations to season and climate. It sometimes aborts spontaneously; and it is in some instances arrested by remedies. If not arrested, it may be favorably modified, its duration abridged, and the danger to life diminished by treatment addressed, not to the pulmonary affection, but to the fever.

The doctrine which it has been the purpose of this paper to advocate is of interest, regarded simply from a pathological stand-point. It is, moreover, important in a practical aspect, leading the practitioner to regard the rational objects of treatment as relating to the essential disease, that is, the fever, rather than to its local manifestations, and in this way bringing pathology into unison with therapeutics based on clinical experience.

"AUTOPLASTIC OPERATION FOR TREATMENT OF WEB FINGER, WITH REMARKS."

By P. A. HARRIS, M.D.,

DOVER, N. J.

The congenital malformation of the hand known as web finger constitutes a deformity of not very rare occurrence. This peculiar formation is not always limited to one hand, neither is it confined to both, as the feet are quite often similarly deformed. Supernumerary fingers and toes are frequently associated with this deformity. In some instances these are merely rudimentary, united by a very slender pedicle of skin and cellular tissue. Again, they are well-formed, having the requisite number of bones, and supplied with muscles. Whether large or small, jointed or pediculated, they are generally characterized by a nail not unlike that of the other fingers or toes.

Every surgeon is familiar with the good results which follow the removal of these supernumerary members, but he is not generally so favorably impressed with the operation for web fingers or toes. True, they may be easily separated by knife or scissors, but they are not so readily kept from reuniting to a considerable extent, thus, in a measure, defeating the object in view. This reunion is produced by granulation and cicatrization commencing at the base of the interdigital space, and slowly advancing toward the finger ends. The two fingers may be kept separated until the incision is healed, and yet they will often be found reunited for a considerable distance. This distance will become greater in time by the slow but sure contraction of the cicatrix. Aside from or in connection with the precautionary practice of widely separating the fingers, there are two acknowledged means of preventing reunion. To repeatedly cauterize the fresh surface at the base of the interdigital space until the opposing cut surfaces of the fingers are healed; or to pass a narrow band of rubber between the fingers, and attach its respective ends to a bracelet on the wrist. This constant traction is thought to prevent rapid filling of the interdigital space, and retard granulation at that point, while it permits the opposing surfaces of the two members to heal.

Though it is believed that either of these methods has accomplished more than any other, yet they have partially failed, even though skilfully managed.

In the summer of 1875 I was consulted by Dr. Henry Hulshizer, a neighboring physician, in relation to a case of web finger on which he had thought of operating by one or other of the above methods. The fingers were united for the whole of their length, and the interdigital space so nearly filled for a part of the way, that the Doctor expressed doubt regarding successful operation. There occurred to me a plan, simple in itself, yet so promising of success, that it was with difficulty I could persuade myself that the same had not been previously resorted to and described. Friendly physicians and medical literature were consulted for authority. I could find no precedent in the latter, and the former kindly encouraged me in the idea. It appeared to me that if, after the separation of the fingers, the raw surface at the base of the interdigital space could be successfully bridged from the dorsal to the palmar aspects with a strip of healthy skin, that farther granulation would be prevented, the area of cicatrization diminished, and the operation rendered a success. Dr. H. expressed his willingness to the experiment, and in October following the operation was performed.

The patient, æt. five months, was born with the ring and middle fingers of either hand united almost to the finger ends. To the middle of the second phalanx the attachment was simply cutaneous, being composed of united palmar and dorsal skin. From this point to the base of the first phalanx, the interdigital space was nearly filled with muscular, areolar, and adipose tissue, the palmar portion being level with the surface of the fingers, and the dorsal just slightly depressed.

The patient being etherized, operation was begun by dissecting up from the dorsal interdigital covering a strip of skin three millimetres in width for two-thirds of its length, and from this point widening to ten or eleven millimetres at its dorsal attachment near the metacarpo-phalangeal articulation. The web was then severed, the redundancy of the opposing sides of the fingers snipped off with scissors, and the base of the interdigital space carefully dissected away. The strip of prepared skin was next carried across the base of the interdigital space, cut to the requisite length, and its end secured to the palmar skin by a silk suture. Both hands being thus operated on, they were dressed as follows: A wedge-shaped mass of lint was fitted between the fingers operated on, and held in place by a delicate bandage which encircled the two fingers, the hand, and wrist. This was well sewed to place, frequent stitches being also taken through the wedge to make it doubly secure. A piece of whalebone, made the requisite length, and notched at each end, was laid on the

bandage, and firmly sewed to it over the dorsal wrist, and near the finger-tips. A solution of salicylate of soda was frequently applied, and, on the third day, when the dressings were removed, the parts were found in a healthy state, vitality of both grafts being apparently well preserved. They were dressed as before, and ordered to be left untouched until the return of the attendant. In the interval between the visits, the bandage came off one hand, and was replaced by the mother. On the following day, her efforts were rewarded by the announcement that the graft of that hand had sloughed off.

An examination of the other hand being then made, the graft was found united, and in a healthy condition. Eight days subsequent to the operation the hand bearing the successful graft was entirely well. Recovery of the other, being delayed to a much later day, was accompanied by considerable filling of the interdigital space. This accident occurring to one hand might, in a professional view, be considered almost fortunate, as it afforded opportunity for observing substantially the results of the old and new methods in parallel cases.

To insure success certain conditions are necessary.

1st. A healthy subject.

2d. Careful preparation of the graft.

3d. Avoidance of pressure on graft.

4th. Antiseptic treatment of the parts.

This, like any of the other autoplastic operations, should not be performed on a patient whose vital forces are below par. In dissection of the graft, pinching or compression should be carefully avoided. It is doubtless safer to cut it somewhat longer than required, thus securing a redundancy for grasping by the tenaculum or forceps. This injured portion may then be cut off, and the remainder of the graft nicely fitted, and fastened to the palmar skin. All tissues except the immediate layer of cellular should be removed from its under surface. Tissues at the base of the interdigital space should all be dissected out to a depth somewhat greater than the normal spaces. The dorsal interdigital space being much deeper than its accompanying palmar one, the graft will form an *acute* and not a *right* angle at its point of junction with the palmar skins. Hence the origin of the graft must be at a point almost opposite the metacarpal-phalangeal articulation. If the fingers are united by a simple web, or fibro-cutaneous band, it will be impossible to obtain a graft from the locality chosen in the operation described. In this event, it might be conveniently procured from the dorsum of the hand, removed to the interdigital space by torsion, and the resulting chasm closed by sutures.

It is necessary that attention be given to the care of the graft, for pressure upon it is certain to lower its vitality and produce sloughing. To insure this care, the fingers should not only be kept widely separated, but also well extended for several days. The former may be accomplished by employing a wedge of quilted cotton, in the form of an isosceles triangle with its apex cut off, made as thick as the fingers, and having its base two-thirds as wide as the fingers are long; this wedge to be placed between the fingers operated on, and secured by a snug bandage encircling the two fingers, hand, and wrist. One or two lines of stitching should be then taken across and through the successive layers of bandage; the wedge to be secured in like manner. I can think of no better plan for extending the fingers than the one employed in the operation described. A wooden splint would, however, be equally serviceable. The trouble of sewing the splint on the outside might be saved by including it in the bandage, but undue and disastrous pressure can be more surely averted by the former method.

Though salicylate of soda was employed in the operation described, other of the more choice antiseptics would doubtless be quite as good. I have delayed the announcement of this operation, hoping for an opportunity for further testing its merits. If, however, this new way did not appear the most rational method of operating, I would not venture to offer it on so limited an experience.

A NEW MATERIAL FOR DILATATION OF THE CERVIX UTERI.

By G. E. SUSSDORFF, M.D.,

NEW YORK.

It is not my purpose to discuss the treatment of uterine disease by the use of tents, but briefly to describe in this paper a new agent which I have been using for some time as a means for inducing dilatation of the uterine canal, and which I believe superior in many essential particulars to those in general use by the profession at this time, viz.: sponge and sea-tangle.

These have been the only agents relied upon, and yet they certainly fall short of being safe or certain. The sponge is difficult to introduce, is irritating to the tissues, and is liable to induce septic poisoning. Sea-tangle, though better in some respects, is not so good in others. It is difficult to get in sufficient quantity and quality to fully meet the requirements of the gynecologist, and while more cleanly, is expensive and very slow in dilating.

Having long since regarded sponge-tents especially with suspicion, and having good reason for believing them to have induced grave local and constitutional disturbance in several of my patients, my distrust has become so great that I now rarely use them. Happily, however, some two years since, while practising in Georgia, I began to experiment with the agent I propose to describe in this paper, and my experience with it has been so uniformly satisfactory that I greatly prefer it to all others. The material of which I speak is the root of the Tupelo tree, a species of Nyssa indigenous to the United States. There are four or five different kinds of Nyssa, all possessing similar qualities: N. Uniflora. N. Multiflora, N. Capetata, and N. Aquatica, are the principal ones. The last named is to be selected for making the best tents. It is a southern species, and grows in swamps and wet places of Georgia and Florida. The roots are the part used. When first dug up from their watery bed they are very heavy, but after being cut in smaller pieces and exposed to dry heat, the water with which they are saturated is evaporated, and leaves them dry and light as cork. It is of fine-grained, but very soft, woody texture; the fibres are not straight, but are interwoven and collected in bundles, which arrangement is peculiar to this genus.

When thoroughly dry, the root is in a suitable condition to be made into tents. For a while I used to make the tents myself, as they were needed, but my means for doing so were imperfect. I have succeeded, however, in having some excellent ones made by Messrs. Tiemann & Co., of this city, who are, I believe, prepared to make them in any quantity. They are easily made, requiring only sufficient compressing force to reduce them to a suitable size for introduction. After cutting the root into a smooth cylinder, a little larger than it is desired to dilate the canal, it is submitted to powerful pressure, by which it may be reduced, if desired, to one-fourth, one-sixth, or even one-tenth its original

size, into a smooth, firm cylinder, which remains so after the force is withdrawn. Before being compressed, they may be most easily medicated with carbonic acid, morphia, belladonna, in fact, anything except acids and astringents, that can be made into aqueous solution, without impairing its expanding power. After the tents are made, they should be kept in a dry place. A few words now with regard to some of the advantages claimed for these tents over others.

1. They are easily introduced, being smooth and firm. 2. They will not easily fall out of place, as they are very light, and soon absorb moisture sufficient to retain their place. 3. They are probably of antiseptic nature themselves, or at least will not decompose the fluids with which they are in contact; have none of the offensiveness always accompanying sponge and sea-tangle, and being purely vegetable, are not likely to induce septic poisoning or local irritations. 4. The rapidity with which they will expand when in contact with the tissues and secretions of the uterus, is perhaps one of their chief advantages. From frequent experience with these tents, I have effected dilatation of the cervix in different cases, in various degrees from the size of a goose-quill to that of a silver half-dollar, in actual time ranging from one hour for the smallest to six hours for the largest, and in no instance was this effect accompanied or followed by any alarming or even unpleasant symptoms of nervous shock or local injury. The firm and even pressure obtained from these tents is well calculated to exert a most beneficial alterative influence upon the tissues upon which they operate. In this respect the Nyssa root is far superior to sponge, or even sea-tangle, especially the latter, which is very slow to absorb and expand, often requiring twelve to twenty hours for this purpose. It does not necessarily follow that the new agent is objectionable, because quick dilatation is not always desirable, for the reason that the amount of dilatation can most easily be regulated by selecting such tents as have been compressed, according to a graduated scale, intended to meet every requirement. For instance, for moderate dilatation one of the smaller ones should be used compressed to one-fourth its original size and so numbered, and for rapid dilatation a series of larger ones more thoroughly compressed, say one-tenth their original size. By this procedure a sufficient opening may be effected in from one to six hours, amply sufficient for all the ordinary as well as extraordinary examinations and operations of the gynecologist.

I never have had occasion to use these tents to obtain rapid dilatation of the os in obstetrical cases, but would not hesitate to use them in appropriate cases.

The common form of cylindrical tents enforces equal pressure at the internal as well as external os; but, should different degrees of pressure be desired along the cervical canal, the root can be so cut and shaped before it is compressed that it will meet such requirements, however diversified. When so fashioned it can be so compressed into a smooth, even cylinder which will again resume the shape designed when sufficiently long in situ.

This material may be obtained in considerable quantity, sufficient at least for all surgical purposes, and at comparatively little cost.

There are other uses to which this material can be put by the surgeon. I have in several cases used it for dilating rectal stricture, with good results. I have also frequently made pessaries from this root, and made them impervious by a coating of celluloid to their surface, which gives them also more strength. These pessaries are strong and light as cork.

Believing that we have in this root a most valuable article, calculated to answer many good purposes, I take pleasure in calling the attention of the profession to it, and recommend the tents made from it as I have described them to be superior to all others heretofore used.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

phthisis—interesting question in physical diagnosis—prognosis modified by the answer.

A male patient about forty years of age was taken sick about the 15th of January, 1877, with what he called "a cold." His symptoms were that he began to cough and expectorate a whitish, frothy material, without soreness of the throat, without sneezing, and without feeling any soreness in the chest, and had no recollection of having had chilly sensations or distinct chill. About one week subsequently he had chill, pain in the right side, and was sick in bed for some days. He then improved to such an extent as to be able to be about, but had suffered from occasional night sweats, had become somewhat anæmic, occasionally felt a little chilly, and had had cough with expectoration of mucus and muco-purulent material up to the date of physical examination. Aside from having had a chancroid the man had been healthy. When the chest was made bare it was found, upon *inspection*, that only a moderate amount of emaciation had taken place, and that upon full inspiration there was no special difference in the expansion of the chest upon either side as compared with the other; perhaps less marked expansion upon the right side. On *palpation* vocal fremitus was found to be increased over the entire right side as compared with the left, and was especially marked at the upper portion. On *percussion*, complete dulness was found in the infraclavicular region upon the right side, and less and less complete dulness as approach was made towards the base of the lung; the same posteriorly. There was extra resonance upon the left side anteriorly; full resonance over the entire left side of the chest posteriorly. Upon *auscultation* there was found to be entire absence of vesicular respiration in the infraclavicular region upon the right side, and there was heard a hollow, blowing sound upon inspiration and expiration, bursting of bubbles under the ear with a metallic sound when the man coughed, a suction noise following cough, as if air was being drawn into a cavity, and a whisper, which was believed to be amphoric rather than bronchial. Similar signs above the spina of the scapula upon the same side posteriorly, and evidence of pleuritic thickening below.

The question arose, did the signs in the infraclavicular region upon the right side indicate the presence of a cavity formed by the breaking down of lung tissue, or one formed by dilatation of a bronchus? Was the respiration bronchial or cavernous? Whether the patient could be promised a possibility of recovery was believed to depend upon the decision of that question.

The history was thought to be against large bronchial dilatation; the sickness had not been of sufficient length. The fact that there was not much emaciation was regarded as evidence against the formation of a cavity, as in ordinary catarrhal phthisis. There was

usually greater evidence of failing vitality, it was said, when a cavity had been formed in catarrhal phthisis than was seen in the patient before us. In the cases in which there was a large amount of consolidation at the apex of the lung, and the patient had shown evidence of the breaking down stage of phthisis, hectic emaciation, etc., it might be said that improvement perhaps would follow change of climate and proper management, but the probabilities of complete recovery were to be regarded as exceedingly small. It was believed that recovery was possible under the circumstances indicated, but after a cavity had been formed it was very rare. While the conclusion was reached in the case before us that the man had a cavity in the upper portion of the right lung, the additional conclusion was reached that it had been produced by changes in the lung substance, which had been active, but had been largely of a croupous character. It was thought that fibrous induration was taking place rapidly, and that if the man could be kept amid the most favorable surroundings, such as a proper climate, etc., there were chances in favor of his recovery.

INTERMITTENT FEVER IN A BOY SIX YEARS OF AGE—ATTACK OF WHOOPING-COUGH SUBSEQUENTLY, AND FOLLOWED BY EITHER MALARIAL OR HECTIC FEVER.

The interest in the case centred upon the decision of the question whether the symptoms were those of malarial poisoning, or were evidence of the presence of hectic fever. The father stated that two years previously the boy had intermittent fever (giving the symptoms), which continued for one week and was then arrested. From that time forward for sixteen months he continued in good health, when he contracted whooping-cough. Two months after the commencement of the attack of whooping-cough the boy began to complain of being cold at about ten o'clock in the morning, and had fever in the afternoon, continuing until six or seven in the evening, but it was not followed by sweating. The father thought it was the same kind of fever from which the boy sufferd nearly two years previously. Nearly six months had passed after the beginning of the fever before the boy was brought for examination.

Physical examination of the chest was made, when there was found slight dulness upon percussion over the lower portion of the right lung posteriorly, and accompanied by a feeble character of the respiratory murmur. It was first thought that the physical signs could be reasonably explained by the presence of the liver in that region, but from the character of the respiratory murmur the conclusion was reached that they were due to the remains of a pneumonia excited during the progress of the whooping-cough, and that the fever was hectic.

ACUTE ARTICULAR RHEUMATISM—CARDIAC COMPLICATION—QUESTIONS IN PHYSICAL DIAGNOSIS.

A male patient had his first attack of acute articular rheumatism six years ago, while at work in a woollen-mill, where he was daily exposed to sudden and frequent changes of temperature from 75° to 95° F. He was suddenly seized with pain in the back, all his joints became swollen, and he was sick seven weeks. No pain in the chest accompanied that attack. Four weeks later, "on account of over-exercise," another attack was induced, which lasted for nine months; no pain in the chest during that time. Recovered, and for fifteen months continued well enough to work. At the end of that time, another attack of rheumatism was developed, which lasted about four months, and then for the first time he had pain in the chest. He was then twenty-six years of age. The pain was in the precordial region, was stitch-like and severe, and lasted fourteen hours. He was sick about six weeks at that attack, and the pain in the chest continued with more or less severity throughout. There was no cough, no shortness of breath; was able to lie down perfectly well; there was no disturbance of the heart's action, and the pain was not increased by full inspirations. About fifteen months subsequently he began to notice that there was shortness of breath, but not sufficient to give him very much discomfort. From that time until the present attack the patient had not suffered from stitchy pains, cough, or spitting of blood. Present attack was developed eighteen days ago; commenced in the knees, and extended to most of the joints. There was pain in the chest the same as during the preceding attack. It was not increased by long breath, but was aggravated by position, the patient being most comfortable when lying upon his left side.

Physical examination gave a double murmur at the base and evidence of cardiac hypertrophy, the apex beat being two and a half inches to the left of the normal position. There was present also a mitral murmur, which was not conveyed very much beyond the apex. The point of interest in the case, so far as physical diagnosis was concerned, was to determine whether the double murmur at the base was evidence of pericarditis or valvular lesion. It was said that if the case was one of pericarditis there would probably be fluid in the pericardium at that date in the progress of the disease. Evidence was sought by means of percussion, believing that the fluid, if present, would give an increased area of dulness in the precordial region. But the area of dulness was already increased by the hypertrophy, and how, by percussion, was pericarditis with serous effusion to be distinguished from cardiac hypertrophy? The dulness did not extend to the right as well as to the left of the normal area, as it would have done if the pericardium had been distended by fluid, hence the double murmur at the base was regarded as evidence of valvular lesion.

EPILEPSY—PECULIAR AURA—DOUBLE AURA.

The kind of aura in the patient presented was regarded as of very infrequent occurrence, and consisted in the development of a subjective smell just before each epileptic attack; in other words, an olfactory aura. The patient was unable to describe the smell. The second feature in his case worthy of note was the existence of a second aura, which was situated in the epigastrium and about the heart.

FREQUENT SEMINAL EMISSIONS—CONTRACTED MEATUS URINARIUS—OPERATION AND RELIEF.

A young man was presented who had suffered from seminal emissions as frequently as twice during a single night, and had been under various forms of treatment for some time, but without benefit. It was found that he had a very narrow meatus urinarius, and, suspecting that it might be a source of irritation, it was divided so as to admit of the introduction of a 32 bulb with perfect ease. From the day of the performance of the operation the nocturnal emissions had ceased, and all his general symptoms, such as pain in the back and lassitude, etc., had been very greatly ameliorated.

On the Danube.—The Russian troops on the Danube are suffering extremely from dysenteric and typhoid diseases, and a large part of the men not in hospitals are showing signs of malarial disease.

Progress of Medical Science.

GIANT-CELLS IN SYPHILOMATA.—The question of the existence of giant-cells has always had an interest in connection with the histology of tubercle, of which at one time it was thought these bodies were pathognomonic, though they had really been found in other morbid conditions. In 1876 Baumgarten noticed them in the gummata of syphilis, and Brodowski found them in one case of syphilitic degeneration of the bronchi, and in another of the cardiac muscle. Browicz also records two cases which corroborate these views. A woman of forty, who bore unmistakable evidences of syphilis upon her person, died of pneumonia, and at the post-mortem examination three tubercles, varying in size from a pea to a bean, were found in the anterior wall of the right auricle. In another instance, a woman of forty-five, who died with evidences of constitutional syphilis, there was a tubercle the size of a bean in the larynx, just below the right false vocal cord. In both of these cases the syphilitic deposits contained giant-cells, the former in greater numbers. The tissue was composed, however, principally of round corpuscles, which occurred either singly or in groups, separated by bands of connective material. There were also spindle-cells in the vicinity of the blood-vessels. In a primary ulcer giant cells were sought for in vain.—*Centralblatt f. d. med. Wiss.*, May 17, 1877.

DOUBLE PHLEGMASIA ALBA DOLENS FOLLOWING TYPHOID FEVER AND ORIGINATING IN NECROSIS OF THE COCCYX AND SACRUM.—Dr. Dumontpallier reports to the Société de Biologie the case of a young girl who, on the twenty-first day of a typhoid fever, presented a bluish-white painful œdema of the left leg, followed two days later by the same condition in the right. After her death, in addition to the characteristic lesions of typhoid fever, there was found in the primitive iliac veins marked venous coagulation, which extended into the crural. Further examination showed that the hypogastric veins and their branches contained clots of older date than those in the iliac, and that these had their origin in a process of mortification going on in the sacrum and coccyx.—*Gazette Obstetricale*, Feb. 20, 1877.

IRREDUCIBLE RETROVERSION OF THE UTERUS PRODUCING INTESTINAL OBSTRUCTION AND CURED BY GASTROTOMY.—M. Koeberlé, of Nancy, reported to the Société de Chirurgie a case where a retroverted uterus, which could not be reduced, exercised such pressure upon the intestine as to produce all the symptoms of obstruction of the bowels. For the relief of this, gastrotomy was performed. The uterus was restored by the finger introduced through the wound in the abdominal wall, and the surgeon availed himself of the opportunity to fasten one of the ligaments in the wound, so as to procure adhesion of the uterus to the wall. This resulted in a perfect cure. Of course one ovary was sacrificed, and the operator would not defend the procedure had not the abdomen been already necessarily opened. — *Gazette Obstetricale*, Feb. 20, 1877.

QUINCKE ON PERNICIOUS ANÆMIA.—Quincke has carefully analyzed ten cases of this disease which he has observed in Berne during the past two years. Men and women were equally affected, and the ages fell between twenty-five and fifty-nine, with one single exception—a girl of eleven. The clinical phenomena were such as have been described, viz., excessive paleness, slight dropsical swelling in the extremities, weakness, digestive disturbances, anæmic murmurs during great cardiac activity, and a small, soft, sometimes wiry pulse. In some cases there was, in addition, actual hypertrophy of the heart, but the valves were intact. The muscular tissue of the heart was anæmic, but not always fatty. Nor were the other organs always fatty. In two of the cases there was jaundice, though after death nothing abnormal was found in the biliary passages. So far as albumen in the urine was concerned, it occurred in rare instances, and then only sparingly. Hemorrhages were seen once during life from the nose and once from the skin, but in the retina they occurred in every case. It was noticed that in the centre of these hemorrhagic spots there was often a brighter, reddish-gray point, which appeared to be due to a deposit of finely granular matter, and was taken to be the remains of lymph corpuscles. Between the choroid and retina, in the myocardium, on the endocardium, on the dura mater, and in the subarachnoid, there were also other hemorrhages. Disturbances of vision were not observed. The temperature of the body was generally normal; sometimes there was a mild, remitting fever of indefinite type. The blood-making organs (spleen, lymphatic glands, and medulla of bones) showed no changes at the autopsies. The development of the disease was always gradual; the entire duration varied between several months and a year. The prognosis he regards as bad, though a fatal issue is not absolutely certain. Of the ten cases two were cured. Special attention in these studies was given to the character of the blood; the entire mass of it was always lessened; the blood itself was always of a bright color, thin, and contained little fibrin. The number of red blood-corpuscles appeared to be diminished, and they were of irregular sizes; in many instances there was an abundance of the smaller red bodies, called *microcytes*. The number of the white corpuscles appeared to be considerably increased in one case, owing to the diminution of the red blood-globules, thus constituting an apparent *leucocytosis*. In other cases there were found among the red globules those opaque or finely granular bodies that are often seen in the blood of cachectic persons. A study of these and similar diseases with which they are associated, such as the more intensive form of simple anæmia and fatty heart have led Quincke to the conclusion that the strict demarcation of them is as yet impossible. As for treatment, proper nutrition is the first thing to be regarded. Transfusion has thus far not been practised with success in these cases, perhaps because it has been employed only in the late stages.—*Berl. klin. Woch.*, 3, 1877.

ROSENSTEIN ON PERNICIOUS ANÆMIA.—Prof. Rosenstein, of Leyden, reports a case of pernicious anæmia presenting the following points. A farm-laborer of thirty-six was healthy until he contracted typhoid fever, from which he never recovered, and ultimately had swollen feet and diarrhœa. When received into hospital on Nov. 3, 1876, he appeared to be a strongly built man, but presented the following abnormal conditions: Skin and mucous membranes were pale and yellowish; panniculus adiposus moderately developed; temperature ranged from the normal in the morning to 101.7° F. in the afternoon; pulse was between 84 and 108; tongue was thickened, cracked, and pale, but not coated; appetite slight; some diarrhœa; urine contained no albumen; a loud, blowing, systolic murmur, of varying intensity, heard over the apex of the heart, as also over the ostium aortæ; the

abdomen tympanitic; the area of dulness over the liver increased; the blood, on repeated examinations, showed the red corpuscles diminished in number and pale, the colorless ones very little increased; no microcytes could be found; vision was normal, but the ophthalmoscope revealed apoplexies of different sizes on and about the papilla. The patient complained chiefly of headache, especially on sitting up, and of slight cough. He improved under the use of quinine and iron while in the hospital, but died rather suddenly on Dec. 3, with symptoms of effusions into the pleural and peritoneal cavities and œdema of the lungs. At the autopsy the semilunar valves of the aorta were found fenestrated, but all others healthy; the heart dilated, and its tissue distinctly granular under the microscope; liver enlarged, its surface smooth, clear brown color on section, the acini distinct; the spleen large and heavy, its capsule smooth, its color light reddish-brown, and both of these organs contained an excess of iron; kidneys normal, except that they were pale. Prof. Rosenstein directs special attention to these points, viz.: 1. That the disease in this case was not of spontaneous origin, but followed upon the typhoid fever, with which fact the hyperplasia of the liver was probably connected. 2. Extreme pallor was the only abnormal feature of the blood-corpuscles in this case. 3. The intensification of the second sound of the heart with absence of murmurs at the ostium of the pulmonary artery, taken with the other signs, might easily lead to confounding this disease with subacute endocarditis. He attributes especial diagnostic importance to the retinal hemorrhages, which have never been wanting in any case of pernicious anæmia. —*Berlin klin. Wochenschr.*, Feb. 26, 1877.

On the Apoplexy of the Retina in Pernicious Anæmia.—Dr. A. Nykamp, of Leyden, reports the examination of the retina from the foregoing case. There were a number of hemorrhages of a reddish-brown color, but no whitish centre could be seen. The medium sized vessels, after careful isolation, showed occasional lateral or central bulgings of the external coat, which also appeared somewhat thickened without noticeable constriction of the calibre. As a rule, however, the vessels were intact. In some specimens colored blood-corpuscles were observed in the angle where two vessels separated; in other cases a quantity of blood-corpuscles was found around the vessel, and again in others they were partly close to the wall of the vessel, but outside of it, and partly lying in a dilatation of the outermost coat. The red corpuscles were distributed through the retinal tissue in groups of four or five, or larger numbers; in the latter case the centre appeared darker than the periphery, and the whole somewhat granular. There also seemed to be an enveloping membrane. These latter conditions Nykamp considers as referable to the altered conditions of the corpuscles outside of the vessels. He concludes that these hemorrhages are due to diapedesis and not to a rupture of the vessels, the whitish centre described by Manz, and the capillary dilatations being accidental rather than necessary accompaniments.—*Berlin klin. Woch.*, Feb. 26, 1877.

Ligation of the Popliteal Artery for Elephantiasis of the Leg.—Dr. Casati has published his treatment of a case which is calculated to revive a method not much in use now. Paul Bertozzi, a man of fifty-four, was admitted into the hospital of Forli on January 10, 1873. His right lower extremity, from the knee downwards, was enormously enlarged, and exhibited a "mass of crusts and nodosities separated by superficial and dry tortuous furrows," with some points of ulceration. The toes and calcaneum were the only parts excepted. The patient's general health was poor, though no organic disease was noted except the localized one just stated. On measuring the leg at the calf it was found to have a circumference of fifty-eight centimetres, and above the malleoli fifty. Dr. Casati resolved in this instance to tie on the proximal side, and accordingly the popliteal was taken up January 12, 1873. On February 17th the ligature had come away, and on the 25th the wound was entirely healed. The circumference of the calf was now fifty-four centimetres, a diminution of four; above the malleoli it was forty-eight centimetres, a diminution of two. Towards the end of March the morbid tissue had become remarkably dry and hard, and many of the nodules were easily detached. During April and May following some fragments came away almost daily. On May 26th the circumference of the calf was thirty-six centimetres, a diminution of twenty-two; and above the malleoli thirty-seven, a diminution of thirteen. Combined with an animal and nourishing diet, the arseniate of iron was given. Under these forms of treatment the patient continued to improve. When seen in May of the following year he could walk with a stick, but the leg was slightly swollen and erythematous in color, with some traces of elephantiasis. In June of 1875, more than two years after the operation, the patient was able to walk without a stick, and the œdema and erythema had disappeared. Twenty-four cases of ligation for elephantiasis are cited, with ten recoveries, four improvements, two returns, two non-improvements, and six deaths. As in Vanzetti's case, compression, rest in bed, and bandages were successfully employed, it is suggested that this treatment be given a fair trial before ligation is considered.—*Med. Press and Circ.*, May 16, 1877.

Properties of the Human Gastric Juice.—M. Charles Richet has been studying these matters upon the person of the patient on whom Verneuil successfully performed gastrostomy. He has reached the following conclusions: 1. The acidity of the gastric juice, whether pure or mixed with food, is equivalent to 1·7 grammes of hydrochloric acid to a thousand grammes of fluid. 2. Acidity increases slightly at the end of digestion, and is independent of the quantity of liquid contained in the stomach. Wine and alcohol increase, but cane-sugar diminishes it. 3. If acid or alkaline matters are introduced, the gastric juice tends to return to its normal acidity. 4. The mean duration of digestion is from three to four and a half hours or more. Food does not pass successively, but in masses. 5. According to four analyses made by a modification of Schmidt's method, it was proved that free hydrochloric acid exists in the gastric juice. 6. It is possible to extract all the lactic acid contained in the stomach, and to prove that there is one part lactic acid to nine parts hydrochloric acid. 7. Following the method of Berthelot, that is, by agitation with anhydrous ether and deprived of alcohol, it can be shown that lactic acid is free in the gastric juice. 8. The question so long in controversy as to the nature of the free acid in the stomach seems almost solved, and it may be said that in every 1,000 grammes of gastric juice there are 1.53 grammes of hydrochloric acid and 0.43 of lactic acid.—*Lyon Médical*, May 13, 1877.

Health Resorts.—With the present season the advertising cards of the attending physicians of the watering-places are being scattered over the country. Judging from the number of distinguished medical names attached to these cards, references must be cheaply obtained.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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PROFESSIONAL QUARRELS.

A PROFESSIONAL quarrel, lately inaugurated in this city, has given rise to much comment in medical circles. The almost universal sentiment appears to be one of regret that it should ever have occurred. In this particular instance, the circumstance is the more deplorable, considering the high standing of the parties concerned. Indeed, as acknowledged leaders of professioual opinion, the rank and file of the profession are made to look upon these gentlemen as scarcely better than themselves. Under certain conditions it would seem that there is no guaranty against the indulgence on the part of even our best men, in those passions against which, even as children, we were taught to guard. It is not our purpose to mention any names in connection with the remarks we wish to make; for, if to any who may read these lines such names are unknown as associated with the controversy, so much the better for all parties concerned.

The regret at the occurrence of any quarrel always associates with itself an anxiety as to its termination. The error of judgment which commences the difficulty, is seldom corrected by continued discusson. On the contrary, the longer the dispute is carried on, the more the original error is magnified. We think that most quarrels of this sort originate in a mistaken idea of the interest which the public may take in purely personal matters. Generally speaking, we think it is always safe to assume that the principals in these contests have either lacked good advisers or have failed to heed them. In the present instance we explain the matter in one of these two ways, because we believe that any parties to a personal quarrel are incapable of judging for themselves. That the latter remark is applicable to the present misunderstanding is, we believe, an acknowledged a d melancholy fact.

At first, of course, it is considered necessary to present what are called merely the facts of a given case. This may be a matter of history, and may or may not be interesting to the world at large. However that may be, a reply is challenged, and is sure to come. Then there is the usual indulgence in sarcasm, the prejudiced interpretation of motives, sly and countless innuendoes; in fact, every passion is aroused save that which savors of a scriptural regard for the neighbor and brother. And, after all, is it not safe to say, that not only is no one benefited by such procedures, but that all are positively harmed? The profession always suffers from these difficulties. Not only is it made ashamed of itself that such differences should exist, but that their occurrence should be published broadcast to the world. And what is the result of the latter? We merely hear that there is another quarrel among the doctors, and that we are keeping up that reputation of which every one of us is so heartily and deservedly ashamed. How often have we heard outsiders say that we are always quarrelling, and how impotent have we been to deny the charge!

We do not pretend to say which of the parties may thus far have the best side of the argument. This is really of small moment, the question being so personal in all its aspects as to entirely overshadow the principle upon which it is apparently based. The best that we can now wish for it is that it may stop where it is; the best that we might have wished for it, if we could have anticipated what has now happened, would have been that it were never begun.

Personal discussions in journals and in society meetings are bad enough, but there is a power which limits them; but when the warfare is carried on by pamphlets and circulated everywhere, when and how can it be stopped?

SANITARY INSPECTION OF PUBLIC SCHOOLS.

AT the last meeting of the Medico-Legal Society, the committee having charge of legislative measures to promote the sanitary interests of the public schools, reported progress, regretting their inability at that time to present a complete report of their labors for the past year and a half. They referred briefly to the bills introduced in the late Legislature, namely: one, fixing the minimum age of admission to the public schools at six years, and limiting the attendance to one session a day of children under eight years of age. Another, providing for the appointment of an Assistant Superintendent of Schools for medical supervision. The necessity of the latter office has already been amply demonstrated in these columns.

The importance of the first bill relating to school age would seem to call for further comment. The reasons assigned by the committee, in advocating its passage, are as follows: "Of children under the age of six years, there are now upwards of 17,000 attending the lower grades in our public schools, who could not fail to be greatly benefited by the enactment of such a law, as will be seen for the following reasons:

"The children return to school in the afternoon, af-

ter partaking of a hearty dinner, often fatigued by play, and, during the warm months, overheated, so that the afternoon session is a tax on the vitality of both teachers and scholars, without any corresponding mental benefit.

"Those interested in the health of school-children may satisfy themselves as to the correctness of these statements, by observing the little ones on these sweltering days returning to school after the noon recess, exposed to the burning rays of the mid-day sun, while in the school to be cooped up in crowded rooms during the entire afternoon without any recess, in constrained positions, crammed for the annual examination, tortured by drill exercises for exhibitions (the usual programme at the close of the school year) in order to gratify the vanity of school-officers, who seem determined to run these schools regardless of the physical well-being of the pupils, and the requirements of sanitary laws."

As if these hardships were not enough, the pupils are obliged to sit for hours during these school exercises, listening to buncombe speeches from school-officers and rising politicians: and to complete the farce, after this indispensable part of the programme is over, the managers hurry to other schools, leaving the most important, and what should be the most pleasing part of their duties to the teachers, namely, the distribution of the certificates.

In this connection, there is one point of interest which was not referred to in the report. Not only are the children subjected to the tortures and annoyances already mentioned, of over-crowded and ill-ventilated class-rooms, etc., but frequently, before school is dismissed, the janitor and his assistants begin their work of sweeping and cleaning, raising clouds of dust. As soon as this work is finished, and after the dismissal of school, the doors and windows are closed immediately, thereby preventing proper ventilation. Thus the children are compelled to rebreathe this poisoned atmosphere on their return to school the next day.

In the face of these facts, the School Board has the boldness to assert that the sanitary interests of these schools are properly cared for, and that there is no need of sanitary supervision.

We trust the Medico-Legal Society will not cease its interest in this subject until the Legislature shall, at its next session, as we have every reason to expect it will, enact the necessary laws, placing these schools under proper sanitary control. In the meantime the school board can make amends for past neglect by placing such control in the hands of the Health Department.

CONTAGIOUS DISEASES IN HOSPITAL.—There is very little, if any, care taken in the French hospitals to separate contagious from non-contagious diseases, except, perhaps, in cases of itch, concerning which, comparatively speaking, ridiculous precautions are taken.

Reviews and Notices of Books.

MYELITIS OF THE ANTERIOR HORNS, OR SPINAL PARALYSIS OF THE ADULT AND CHILD. By E. C. SEGUIN, M.D., Clinical Professor of Diseases of the Mind and Nervous System in the College of Physicians and Surgeons, New York.

THE manifestations of motor and sensory derangement are so varied and complex that it has always been regarded by the general practitioner as most difficult, in diseases of the central nervous system, to associate cause and effect. Thanks, however, to later researches and the skilful grouping of symptoms found in recent literature, the diagnosis of cerebro-spinal disease has been materially simplified. This essay by Dr. Seguin is another valuable contribution to this department of study, and can be commended, not only for its clearness of statement, and for the value of the facts presented, but for its success in rendering more easy the differential diagnosis of changes in the anterior cornua of the cord from other forms of spinal affections. The 120 pages devoted to the subject are divided into nine chapters, the first of which treats of the nomenclature. The second chapter, of over 50 pages, includes merely the simple details of 45 cases. In chapter third, the symptoms of the foregoing cases are studied analytically, and the more important conclusions drawn are:

1st. That in myelitis of the anterior horns of the adult there is no tendency to the occurrence of complete or lasting paralysis of the bladder and rectum, which forms so prominent a symptom of common central myelitis. 2d. As a rule, the anæsthesia is but slight and temporary, and in no case is it severe or lasting. 3d. Numbness or formication occurred nearly always at the commencement of the disease. 4th. Muscular atrophy occurred in more than half the cases. 5th. Farado-muscular contractility was, as a rule, much diminished, and in many cases absolutely lost, while galvano-muscular contractility, although generally diminished, was totally lost in but three instances.

Chapters fourth and fifth are devoted respectively to a synthetical study of the symptoms, and to the pathological anatomy. The changes in the anterior horns are found to consist mainly of atrophy of the ganglion cells.

The question of diagnosis in chapter sixth is rendered comparatively simple, from the fact that in most other forms of central disease there is a far more marked reaction to faradism than in the condition under consideration. Ætiology, Treatment, and Prognosis are the subjects of the last three chapters. The conclusion is that cold and dampness are the only exciting causes, and in the treatment the main reliance is to be placed on ergot, belladonna, iodide of potass., counter-irritation, and electricity, in various combinations according to special indications. In regard to the prognosis, the author concludes that it is very good as regards life, but unfavorable with respect to the function of paralyzed parts; very few patients recover perfectly from myelitis of the anterior horns.

CONTRIBUTIONS TO OPERATIVE SURGERY AND SURGICAL PATHOLOGY. By J. M. CARNOCHAN, M.D. With illustrations. New York, 1877. Harper & Brothers. Parts I. & II. bound together.

THIS is a quarto, publishing in parts, and having the same scope and aim as Hutchinson's Clinical Illustrations, recently noticed. The parts before us includ

a most charming essay on the "Study of Science," in which the true relations of the inductive and deductive methods are duly set forth. This is followed by Dr. Carnochan's account of the first ligatures of the femoral and of the carotid arteries, for the cure of elephantiasis, together with Wernher's statistics of the operation collated from thirty-two cases. These show that in a few the operation was entirely successful, but that in the majority relapse occurred. In addition, the volume contains remarks on the ligation of the common trunk of the femoral artery in relation to secondary hemorrhage following amputation of the thigh, and in hemorrhage from wounds of the plantar and tibial arteries, with cases. The parts contain two full-page plates, and the work, when finished, will doubtless prove a welcome addition to the library of the practical surgeon.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK FOR THE YEAR 1876. Albany, N. Y.

EITHER through inadvertence or accident, the "Transactions of the Medical Society of the State of New York" have reached us too late to make an extended review. A full report of the proceedings has, however, been published in these columns. The inaugural address by the President, Dr. Thomas F. Rochester, is an able *résumé* of the medical and surgical progress of the times. The remarks concerning ventilation of school-houses shows that most of the children in the public schools are being slowly poisoned by carbonic acid gas, in one school the allotment being only 56 cubic feet of air to each child, instead of 1,000 or 1,500 cubic feet. Attention was also called, very properly, to the question of preliminary education of students, and resolutions regarding thereto, previously passed, reaffirmed. The most interesting papers were those of Dr. S. R. Percy, on the "Comparative Physiological and Therapeutic Action of Free Phosphorus and the Hypophosphites"; Dr. L. A. Sayre on the "Treatment of Rotary-Lateral Curvature of the Spine"; Dr. H. D. Noyes on "Diseases of the Lachrymal Duct"; Dr. Eugene Balch on a case of "Retention of Urine caused by Hypertrophy of the Prostate, treated by the Aspirator"; Dr. L. D. Bulkley on the "Use of Ergot in the Treatment of Purpura"; Dr. T. Dimon on a case of "Disorganization of the Brain without Corresponding Loss of Function"; Dr. A. N. Bell on "The Relations of Unsanitary Conditions to Pauperism, Vice, and Crime"; and Dr. J. W. S. Gouley on "Stone in the Bladder." The volume is very handsomely bound, and altogether a credit to the Society.

PRINCIPLES OF THEORETICAL CHEMISTRY, with Special Reference to the Constitution of Chemical Compounds. By IRA REMSEN, M.D., Ph.D., Professor of Chemistry in the Johns Hopkins University. Philadelphia: Henry C. Lea, 1877.

THE author's intent is to furnish the student with a simple statement of the fundamental principles of theoretical chemistry. In part first, the atomic theory, gaseous elements and compounds, solid elements and compounds, properties of the elements as functions of their atomic weights, and valence or atomicity of elements, are discussed. Part second treats of the constitution or structure of chemical compounds.

The subject of valence is examined as thoroughly as the present knowledge of the subject will admit; but few satisfactory results have been obtained, for the reason that so little is known about it.

The book is worthy of careful perusal, and will be of assistance in determining the basis upon which our conceptions of chemical constitution rest.

Reports of Societies.

MAINE MEDICAL ASSOCIATION.

TWENTY-FIFTH ANNUAL MEETING,

HELD AT PORTLAND, MAINE, TUESDAY, JUNE 12.

Special Report for THE MEDICAL RECORD.

PRESIDENT'S ADDRESS—ANTISEPTIC SURGERY—SULPHO-CARBOLATE OF SODIUM IN SCARLET FEVER—HYGIENE OF HOMES—SALICYLIC ACID—STRANGULATED HERNIA—STATE BOARD OF HEALTH—OVARIOTOMY—SANITARY CONDITION OF PORTLAND, MAINE.

THE twenty-fifth annual meeting of this Association was held in Portland on Tuesday, Wednesday, and Thursday, June 12th, 13th, and 14th. There were about one hundred and fifty members present, and delegates from the New Hampshire, Massachusetts, Rhode Island, and Connecticut Medical Societies.

Tuesday morning was spent principally in routine business. A paper on Rheumatism, by Dr. Webster, and one on Otology, by Dr. Holt, were received.

At the opening of the afternoon session, the President, Dr. E. F. Sanger, of Bangor, delivered the annual address. After recounting briefly some of the important discoveries in medicine and surgery which have been made during the century, the credit of which is due to American physicians, he proceeded to take up some matters of practical interest to the Association. He advised that the Association make a new effort to obtain from the next Legislature a law providing for a State Board of Health. Also that the Association petition the Legislature to enact a law compelling parties suing for malpractice to give bonds to pay all taxable costs in case of defeat. Suggestions were also made upon medical education, the Pharmacopœia, and the metric system. Subsequently special committees were appointed upon these several subjects.

DR. FILES, of Portland, read a paper on "Antiseptic Surgery." In the discussion which followed, it was the opinion of most that, in the great majority of cases, as good results could be obtained by scrupulous cleanliness, complete arrest of hemorrhage, and perfect coaptation of parts, as by Lister's method.

DR. HUTCHINSON read a report upon the use of "Sulpho-carbolate of Sodium in Scarlatina," giving a series of cases in which the remedy seemed to exert a powerful influence for good; also some cases in which it seemed to possess prophylactic power.

In the evening DR. HASKELL, of Stockton, read a very interesting and practical paper on "The Hygiene of our Homes," which was the conclusion of a paper presented at the last meeting. In this paper he took up the subjects of food and water, dwelling particularly upon milk, and the importance of obtaining it from cows that were not only healthy, but were well cared for.

DR. GERRISH, of Portland, presented a report upon "Salicylic Acid," which was a synopsis of reports of the actual experience of forty (40) members of the Association. The conclusions drawn were that it was of great value in acute rheumatism; of some value in chronic and muscular rheumatism, but uncertain; of no special value in neuralgia, diphtheria, etc.; and very efficient for local use as a disinfectant and deodorizer.

The remainder of the evening was taken up by reports of committees.

WEDNESDAY, JUNE 13.

In the morning DR. TEWKSBURY read a report of a case of fibroid tumor of the uterus, and made some general remarks upon the subject.

DR. SMALL, of Portland, then read a paper on "Anæsthetics in Obstetrics," and was followed by DR. DONNOVAN, of Lewiston, by one on Necrosis.

DR. BRAY, of Portland, read the report of an interesting case of "Strangulated Hernia; Slough of Intestine; Recovery with Artificial Anus," which occurred in the practice of Dr. Tewksbury. The patient was first seen March 6th, the fourth day after strangulation took place. On opening the sac, the intestine was found to be gangrenous, and eight inches of the ilium was removed, together with an undescended testicle, which was also gangrenous. The open extremities of the intestine were stitched to the wound. The patient was in a state of profound collapse, no pulse at the wrist, and constantly vomiting fecal matter. For an hour whiskey was administered subcutaneously, in drachm doses, every few minutes. Reaction then came on, and from that time recovery took place without interruption. He went out of the house for the first time on May 30th. He was presented to the Association, and had the appearance of a man well nourished. The fecal discharge is controlled by a hard rubber plug, which is held in place by an elastic bandage, and a tube is run through the plug, which is provided with a stopcock to allow the escape of gas. The plug is removed once or twice daily, and a free evacuation of the bowels takes place.

At the opening of the afternoon session, the following officers were elected: *President*, T. H. Jewett, South Berwick; *Vice-Presidents*, P. S. Haskell, Stockton, W. Osgood, North Yarmouth; *Treasurer*, T. A. Foster, Portland; *Recording Secretary*, C. O. Hunt, Portland; *Corresponding Secretary*, S. H. Weeks, Portland; *Board of Censors*, F. H. Gerrish, Portland, H. H. Hunt, Gorham, A. J. Billings, Freedom, A. J. Fuller, Bath, J. A. Donnovan, Lewiston.

DR. FRENCH, of Portland, Chairman of the Committee on State Board of Health, presented his report, giving the causes of failure with the last Legislature, of which the following is a sample: "One gentleman on the Judiciary Committee, representing a manufacturing interest, was apprehensive that the factories might incur expense in being compelled to make some provision for the escape of operatives in case of fire, or that a similar outlay might be required to improve the ventilation. The same gentleman innocently inquired whether the disclosure by a State Board of Health that tenement-houses in a certain locality were unhealthy, or that a certain tract of land was unsuitable for building purposes, might not be prejudicial to the interests of landlords and real estate owners." The committee was continued, with the addition of three new members, and were instructed to make another effort before the next Legislature.

DR. GREENE, of Portland, presented an abstract of a paper on the treatment of fractures of the elbow-joint.

DR. BRICKETT, of Augusta, presented an abstract of a paper on the History of Ovariotomy in Maine. The first operation performed in this State was by Dr. McRuer, of Bangor, in 1853. The whole number of operations of which he had obtained the records was ninety-six, of which fifty nine were successful.

The evening session was occupied in listening to the annual oration by DR. GEORGE F. FRENCH, of Portland, his subject being Materialism. It was an able argument against the materialistic tendencies of the day.

THURSDAY, JUNE 14.

After the transaction of business, DR. BROWN, of Paris, read an interesting history of three cases of fracture of the skull, two of which resulted in recovery, with partial paralysis, and the other in death, five months after the injury, from abscess of the brain.

DR. GERRISH, of Portland, read a report upon the Sanitary Condition of Portland, considering the following points: vital statistics, the prevalence of infectious diseases, the condition of the sewers, and the character of the water. He concluded with the following practical suggestions: "In the first place, we should have some adequate system of registration of vital statistics; this would necessitate an entire overthrow of our present method. Births should be recorded as well as deaths, and medical attendants should be required, under suitable penalty, to make report to a registrar of all the necessary data with regard to decedents who have been under their care. Next, we should have many improvements in our sewer system, and have them at once. Our method of disposing of excreta and offal other than by the sewers needs thorough reformation, as at present it is a source of a vast amount of sickness and death. Our water supply should be under the supervision of the city authorities. Measures should be taken to stamp out scarlet fever, a disease which is far more destructive to life in our community than is small-pox. Above all, our citizens need to be educated with reference to these vital matters, and shown the crying need of taking active steps in protecting their lives and the lives of their children."

DR. SPALDING, of Portland, read a paper on The Ophthalmoscope in Medicine.

The report on Necrology was made by DR. HORR, of Lewiston, from which it appeared that the Association had lost during the year eight members, and what was noticeable five of the eight were among the original members of the Association.

The Association then adjourned to the second Tuesday of June, 1878.

NEW HAMPSHIRE MEDICAL SOCIETY.

Eighty-seventh Annual Meeting.

HELD AT CONCORD, N. H., JUNE 19–20, 1877.

DR. A. B. CROSBY, PRESIDENT, IN THE CHAIR.

(Special report for THE MEDICAL RECORD.)

TUESDAY, JUNE 19TH.

THE eighty-seventh annual meeting of the New Hampshire Medical Society was held in Rumford Hall, in the city of Concord, N. H., on *Tuesday*, June 19, 1877, the President, Dr. A. B. Crosby, in the chair. The attendance was large.

The Association was called to order by the President, after which prayer was offered by Rev. Mr. Campbell, of Francestown.

The report of the Council was read by Dr. Conn, of Concord, the Secretary. It was considered by sections. Its recommendations to memorialize the State Legislature for the establishment of a State Board of Health, and to memorialize Congress that the Subject Catalogue of the Army Medical Library be printed, were

adopted, as was also a resolution to publish the early reports of the Society.

Certain changes in the manner of choosing officers, after much debate, were postponed for consideration until the meeting of 1878.

The regular working committees for temporary purposes were then appointed.

The hospitalities of the Society were extended to numerous visiting brethren.

President Crosby then delivered an able oration on "The Ethical Relations of Physician and Patient," and received the thanks of the Society therefor.

Dr. Conn, of Concord (the Secretary), then read an eminently practical paper on "The Duties of Governments in Respect to Hygienic and Sanitary Provisions."

These, and all other papers subsequently read, were referred to the Publication Committee.

The Society's Annual Dinner took place in the Phœnix Hotel, and was partaken of by seventy-five members and visitors. The speeches were reminiscent, full of gratitude for the past and to the memories of the departed whose labor had made its fame, and also full of hope in a promising future.

At the opening of the afternoon session Prof. Smith, of Peterborough, read the report on Necrology, and sundry necrological papers were read and ordered for publication.

A demonstration of the system of applying the plaster-of-Paris jacket, for the cure of curvature of the spine, was given by President Crosby, the patient being a boy of ten years of age.

Dr. Field, of Dartmouth, read an able paper on "Therapeutics," dwelling with special emphasis on the qualities of digitalis in the treatment of heart affections.

Dr. A. H. Crosby, of Concord, read a very acceptable essay on "Orthodoxy and Heterodoxy in Medicine."

Dr. Allen, of White River Junction, read a paper on "The Reduction of Dislocation of the Hip by Manipulation."

Sundry papers were read by their titles and referred to the Publication Committee.

Several district medical society reports were made, and similarly disposed of.

Drs. J. C. Eastman, A. F. Carr, and S. G. Hill were appointed a special committee to appear before the Judiciary Committee of the Legislature to oppose "The Medical Tramp" movement before that body.

Dr. Wheat, the Treasurer of the Society, made his annual report. The income during the past year was $310, and the expenditures $363. The Bartlett fund in the bank amounted to about $1,000.

The meeting adjourned at 10 minutes to 9 o'clock, and afterwards attended a reception given by the Concord physicians, at the Phœnix Hotel, which was well attended, and where a large party enjoyed a season of great social enjoyment. A sumptuous supper was served.

Wednesday, June 20th.

On *Wednesday* morning, June 20th, the Society met at a quarter to 9 A.M.

Dr. Frost, of Hanover, made a motion, which was carried, that the Board of Censors to be elected should be organized by the appointment of a chairman and secretary, that examination should be had of the time and place of graduation of licentiates, and that their licenses should become subjects of the Society's record. The subject of licensing on diplomas was taken up, and it was the opinion, and the practice of censors, as it appeared, not to recognize any diploma not granted by an approved college or medical institute.

In accordance with special assignment the Society proceeded at 9 o'clock to make choice of officers for the ensuing year by ballot, with the following results:

For President—Dr. Luther M. Knight, of Franklin.

For Vice-President—Dr. Alonzo P. Carr, of Goffstown.

Dr. G. P. Conn, of Concord, was re-elected Secretary by an unanimous acclamatory vote.

For Treasurer—Dr. Thomas Wheat, of Manchester, by acclamation.

For Censors—Drs. Frost, of Hanover; Towle, of Claremont; Hersey and Adams, of Manchester; Cogswell, of Warner; Parsons, of Portsmouth; Barney and Crosby, of Concord; Sanborn, of Franklin; and Gould, of Raymond.

For Council—Drs. Gage, of Concord; Weymouth, of Andover; Jarvis, of Claremont; Anthonie, of Antrim; Lathrop, of Dover; Fowler, of Bristol; Childs, of Bath; Crittenden, of Plaistow; Wheeler, of Pittsfield; and Adams, of Manchester.

For Executive Committee—Dr. W. W. Wilkins, of Manchester; J. W. Parsons, of Portsmouth; and G. W. Carter, of Concord.

Prof. Smith offered a motion that Dr. Bancroft, of the Asylum for the Insane, be requested to investigate the condition of the insane in the various almshouses and county houses, and report to the Society. This process he explained to be merely an introductory step toward legislative action.

Dr. Eastman, from the committee appointed to attend the hearing before the Judiciary Committee of the Legislature to oppose the bill to repeal the act against peripatetics calling themselves doctors, which was passed two years ago, and known as "The Medical Tramp Law," made a report in which was embodied the experience of the board appointed to examine these quacks. It was shown that the great majority of applicants were entirely ignorant of even the first principles of medicine.

Dr. Parsons, of Portsmouth, related the particulars of a case of empyema, in which the aspirator was used ninety-three times, which led to a long discussion as to the efficacy of the instrument on chronic cases. Considerable division of opinion subsisted on this point; but it was considered that in all cases it ought to be tried, associated with careful efforts to keep up the constitutional strength of patients, that being, it was feared, somewhat neglected.

Dr. Parsons, of Portsmouth, read a paper descriptive of operations for the reduction of strangulated hernia, which was discussed at some length.

The President made some very interesting practical remarks on Median Lithotomy.

Dr. Hill, of Dover, offered a resolution of thanks to the President.

A final adjournment took place at half-past twelve o'clock.

Annual meeting for 1878 will be in Concord, N. H., the third Tuesday of June.

Diphtheria.—The latest novelty in regard to diphtheria is the supposed influence of drinking-water in causing the disease. To the students of this affection it may be comforting to know that as yet no cases have been found except in the imagination of a rash innovator.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 9, 1877.

Dr. A. L. Loomis, President pro tem., in the Chair.

Dr. McCreery, on behalf of the Microscopical Committee, reported the tumor of the breast presented by Dr. Sell at the last meeting to be composite in its nature, being in part made up of alveolar sarcoma, and in part by fibrous tissue.

THE INTESTINE IN VARICELLA.

Dr. Partridge presented a portion of the large intestine removed from a child who died during an attack of varicella. For the last eight hours of its life it had simple diarrhœa, amounting to five or six passages. With the exception of the right lung, which was the seat of lobular pneumonia, and the large intestine, all the organs appeared to be healthy. In the large intestine there was a large number of small superficial abrasions or excoriations of the epithelial covering, due probably to the frequent passages. Besides this there seemed to be a few spots that had the appearance of flaccid vesicles. Each of these spots was surrounded by capillary hyperæmia. The appearance of the mucous membrane so closely resembled that of the mucous membrane of the mouth, tongue, and palate during the eruption, that it was hardly possible to look upon the occurrence as a coincidence.

Dr. Partridge presented a second specimen, consisting of the ovum discharged from a woman who was six weeks advanced in pregnancy. Previous to her last conception she had three consecutive miscarriages. The exciting cause of the last accident was a bronchial catarrh with troublesome cough.

REPRODUCTION OF BONE AFTER PARANYCHIA.

Dr. Post presented the necrosed distal phalanx of the index finger, the result of a neglected paranychia. The interest of the specimen consisted in its association with an exceedingly rare sequel, viz., the complete reproduction of the bone.

Dr. Sayre had seen several such cases in which the finger bones had been reproduced. The great point in the treatment consisted to allow the dead bone to remain as long as possible, and until the involucrum was sufficiently firm to preserve the requisite shape and act as an efficient splint.

VESICAL CALCULUS.

Dr. A. B. Crosby presented two specimens of vesical calculi, removed by median lithotomy. The first patient was fourteen years of age, the signs of calculus having been present for a year. The second patient was seven years of age. The day following the operation on this case the temperature rose rapidly to 103°, but was at once lowered by a warm bath. Both cases did well.

Dr. Crosby presented a third specimen, which was an eye removed by extirpation from a man forty years of age, who had destroyed the organ by falling against a sharp body while intoxicated. After the accident deep-seated inflammation took place, followed by uncontrollable pain and sympathetic irritation of the other eye.

A QUESTION IN DIAGNOSIS.

Dr. Loomis exhibited a specimen removed from a Cuban boy thirteen years old, who was admitted to Bellevue Hospital on the ninth of April. No family history could be obtained. The personal history was incomplete. It was stated by his friends that he had been suffering for a year past with constant pain in his head. This pain had been frontal in character for the most part, but at times extended all over the head. It was most severe during the day, and was increased by excitement. During this time he had lost flesh and strength. Three months before his admission the pain was much more severe, and was constant. This was attended with some nausea and vomiting, and some difficulty in passing water. Two months before admission he became totally blind, whether suddenly or not could not be ascertained. He would also have attacks of hiccough which would last three or four hours at a time. At that time it was also noticed that he had a difficulty in his speech. His answers to questions were slow but not imperfect. His intellect was clear. When admitted he was unable to stand or even to sit up in bed. If he was placed upon his feet, his legs gave way and he fell to the floor. If he was raised in bed, he would slide down on his back, with his head flexed to the left and his left hand carried up to the back of his head. His pulse was 118, and feeble; temperature, 98½°. Pupils were widely dilated, did not respond to the light, and he was evidently totally blind. There was total deafness on right side, while on the left side the tick of the watch could not be heard beyond an inch. Tongue was flexed to the right when protruded. Slight facial paralysis on right side. Less power in grasp of right hand than in the left, but no marked paralysis. About the only thing he complained of was pain in the head. The sense of taste was good, but that of smell seemed to be somewhat limited.

The diagnosis made before the class was: probable tumor of the brain, perhaps meningitis, possibly both tumor and meningitis. The second day after admission he passed into coma, in which condition he remained for twelve hours, when consciousness returned. There were a number of times on which he passed into this semi-conscious condition, but on the 23d of April the coma became deeper than usual, and he died.

At the autopsy, the dura mater was found adherent to the posterior portion of the skull and cerebellum. In other words, the two surfaces of the arachnoid, the dura mater, was adherent to the brain, and there were evidences of basilar meningitis. There was no tumor of the brain at any point. The lateral ventricles were distended with serum, the optic thalami were flattened, as were also those convolutions in the neighborhood of those places where the distention was the greatest. Scattered over that portion of the arachnoid that was attached to the dura mater, were a number of smooth bodies having all the characteristics of miliary tubercles. The latter were also found upon the surfaces of both pleuræ, also in the spleen and liver. It was then a case of basilar meningitis of the tubercular variety. The question suggested by this case was whether the symptoms referred to as belonging to cerebral tumors did not in reality, for the most part, at least, belong to those of the ordinary meningitis, with which such tumors were so invariably associated.

Dr. Carpenter remarked that when the specimen was fresh the miliary tubercles were apparent for a considerable distance in the substance of the cerebellum itself. Some of the granular bodies were found in the kidney, but none in the fissure of Silvius.

Dr. Mason presented the astragalus and portion of the external malleolus, which he removed by operation from a case of congenital talipes equino-varus.

The patient was a woman aged 20 years, in whom the deformity of both feet was congenital. She was able to walk for a mile at a time, although with much difficulty, as the weight of the body was on the outer and dorsal surfaces of the foot. The patient had been

under the care of Dr. Sayre, who divided both plantar fascia, with, however, no good effect. Dr. Sayre kindly handed over the case to Dr. M., and the patient entered his service at Roosevelt Hospital, March 29.

Dr. M., in studying the case, conceived the possibility of removing the cuboid bone and then bringing the foot in position. Dr. Post, on examining the case, suggested the propriety of removing the astragalus instead, thereby preserving the arch of the foot. This operation was accordingly done, April 2d, upon the left foot. An incision was made nearly midway between the malleoli, the tendons and vessels being carefully pushed to one side. It was noticed that the extensor brevis was remarkably well developed. The astragalus was removed with great difficulty by the careful use of the scalpel and scissors. An attempt was made to straighten the foot, when it was discovered that the external malleolus impinged in such a manner upon the outer surface of the os calcis, that the foot could not be brought to a right angle. The external malleolus was accordingly cut off. It was even then found that the foot could not be brought in position until the tendo achillis was divided. The limb was placed in plaster-of-Paris, with a large fenestrum opposite the wound, and the patient put in bed.

Although she seemed in excellent condition, some spots of ecchymosis appeared upon the right foot. Similar spots were noticed upon the right foot the following day, following hypodermic injections. On the third day she had an attack of severe stomatitis, coincident with which the tissues about the foot were noticed to be sloughy. The large bursa on the foot sloughed, leaving bare almost the entire dorsum. The toes preserved their vitality. On the 5th of April, the splint was removed and the limb was placed in a fracture-box. At that time there was noticed a large slough behind the internal malleolus, and altogether her condition was very unfavorable to recovery.

Early on the morning of April 15, a copious secondary hemorrhage occurred evidently from the posterior tibial artery. Amputation of the leg was performed on the afternoon of the 15th. Everything promised fairly after the operation until the 3d of May, when for some utterly unaccountable reason, she lost her appetite and spirits, and died May 8th. Two or three days before her death she suffered severely from an abscess of her index finger. Although the case terminated so unfortunately, Dr. Mason declared that the operation was a feasible one, and that he should be ready to perform it again upon a patient in a proper physical condition.

When studying up the case, Dr. Mason was not aware that the operation had ever been performed before. Dr. Sayre wrote to Dr. Levis of Philadelphia, regarding this point, and Dr. L. referred the question to Dr. John Ashhurst, Jr., of Philadelphia. That gentleman made the following reply:

"2,000 W. Delancey Place, April 9, 1877.

"My Dear Doctor:—I know of but one case in which the *astragalus* has been excised for talipes varus, that being a case in which Mr. Leard, of Manchester, did the operation on *both* feet of a child. The case was published in the *British Medical Journal* for October 19, 1872, and is copied in the *New Sydenham Society's Biennial Retrospect* for 1871-72, p. 226.

"Excision of the *cuboid* bone for varus, originally suggested by Dr. Little, was first performed by Mr. Jolly; an account of the case is given by Mr. Adams in his "Treatise on Club Foot," second edition, p. 250. This operation has since been repeated by Mr. R. Davy, of the Westminster Hospital, but I have mislaid the reference to his cases; and quite recently Mr. Davies-Colley, of Guy's Hospital, has excised the *cuboid*, with parts of the *astragalus*, *scaphoid*, *calcaneum*, *cuneiforms*, and the *cartilages* of the outer *metatarsal*. This case was reported to the Royal Medico-Chirurgical Society, and was published in the *Lancet*, for Oct. 14, and the *Medical Times and Gazette*, for Oct. 21, 1876.

"I do not know of any case in which the *scaphoid* alone has been excised for club-foot.

"Very truly and respectfully.

"John Ashhurst, Jr."

Dr. Crosby said that he was much struck with the result of the case as connected with similar ones which come from the country to be operated upon in our large hospitals. Her condition would appear to show that she had not become acclimated to the hospital. It was a question with him whether it was not better to operate upon such cases before they had a chance to break down.

Dr. Sayre remarked that the mental condition of the patient was very unfavorable to recovery, she having left her home against the will of her parents, to have the operation performed.

PERICARDITIS IN YOUNG CHILD.

Dr. Lewis Smith presented the lungs of an infant aged four and a half months, who died at the New York Foundling Asylum, after a sickness of six days. When Dr. Smith saw the patient forty-eight hours before death, it was apparently moribund. The lips were slightly livid, the respiration very much accelerated; pulse feeble and frequent; temperature 101½°. Bronchial respiration was heard on both sides of the chest, and double pneumonia was diagnosticated. At the autopsy, instead of the double pneumonia, there was found purulent pericarditis. The left lung was healthy, but over its anterior portion there was pleurisy with effusion, due to the extension of the inflammation from the pericardium. On the opposite side there was a pneumonia limited to the third of the upper lobe. The point of interest was, the extreme rarity of pericarditis in a child of that age.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 24 to June 30, 1877.

Bailey, J. C., Surgeon. Assigned to duty as Post Surgeon at Benicia Arsenal, Cal. S. O. 66, Division of the Pacific and Dept. of California, June 15, 1877.

Bache, D., Surgeon. In addition to his present duties, to attend the sick at Alcatraz Island, California. S. O. 68, C. S., Division of the Pacific and Dept. of California.

Middleton, J. V. D., Surgeon. Assigned to duty at Fort Schuyler, New York harbor. S. O. 139, C. S., Division of the Atlantic. And granted leave of absence for two months. S. O. 140, Division of the Atlantic, June 26, 1877.

Woodhull, A. A., Surgeon. Relieved from duty at Alcatraz Island, California, and assigned to temporary duty at Camp Halleck, Nevada. S. O. 68, C. S., Division of the Pacific and Dept. of California.

Vickery, R. S., Ass't Surgeon. Assigned to temporary duty at Fort Schuyler, New York harbor. S. O. 142, Division of the Atlantic, June 28, 1877.

De Witt, C., Ass't Surgeon. Assigned to tempo-

rary duty at Omaha Barracks, Nebraska. S. O. 87, Dept. of the Platte, June 26, 1877.

Semig, B. G., Ass't Surgeon. Assigned to duty as Post Surgeon at Camp Bidwell, California. S. O. 66, C. S., Division of the Pacific and Dept. of California.

Newlands, W. L., Ass't Surgeon. To report to Major George B. Sanford, 1st Cavalry, for duty with his command. S. O. 68, C. S., Division of the Pacific and Dept. of California.

New Instruments.

A RESPIRATORY BRACE.

Dr. Geo. F. French, of Portland, Me., has devised (*Boston Medical and Surgical Journal*) a very useful appliance for the relief of orthopnœa. It consists, as will be seen from the accompanying cuts (Figs. 1 and 2), of a cross-bar from the extremities of which hang two loops of strong elastic webbing for the support of the shoulders. The broad band encircling the head is steadied by guys stretching across on both sides to the upright elastic supports. The apparatus is suspended by a pulley or ring from the ceiling. Fig. 1

Fig. 1.

represents a patient resting with the brace applied under the shoulders. Whenever, from the weight or helplessness of the patient, or from the tedious duration of the case, the circulation in the arm is impeded, the support should be afforded by the elbows, as in Fig. 2, in which the entire pressure comes upon the outside of the forearm. Usually, however, the degree of pressure under the arms requisite to sustain a person who is sitting is insufficient to interfere with the circulation. The utility of the apparatus can hardly be questioned. The thorax being slung as it were by the arm-pits, and the head properly steadied, muscular fatigue is prevented, the voluntary and involuntary respiratory muscles have the best possible chance to act, and the patient is supported in an easy sitting position for sleep. Aside from this the apparatus can be adapted to every case in which it is necessary to afford an effectual and comfortable sitting position

Fig. 2.

and relieve the upper portion of the body from the weight of the shoulders and head.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending July 7, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
June 30.....	0	5	88	0	56	32	2
July 7.....	0	4	70	2	31	42	5

London Charities.—Several of the large medical charities in London are in great want of funds. The *Lancet* advocates their permanent endowment.

Small-Pox.—The study of the recent small-pox epidemic in Great Britain affords additional corroboration of the fact that epidemics decline on the advent of warm summer weather.

Tayuya a Specific for Syphilis.—A resident of Milan, by the name of Ubicini, is said to have met with a tribe in Brazil who have been peculiarly afflicted by syphilis. They have been successfully employing a plant of the family cucurbitacea (Dermophylla pendulina), which grows in the wilds of Brazil. One gramme of the alcoholic extract is given by subcutaneous injection. A complete cure and no return is promised for those who use the drug.

Nurse-Training in France.—A school for training nurses has just been started in Paris under the auspices of Dr. Duchaussoy. The establishment is under the patronage of a board of influential ladies.

Original Communications.

ON CERTAIN POINTS RELATING TO THE NATURE AND TREATMENT OF LUPUS.*

By HENRY G. PIFFARD, M.D.,

PROF. OF DERMATOLOGY IN UNIVERSITY OF CITY OF NEW YORK, SURGEON TO CHARITY HOSPITAL, ETC.

For the purposes of this paper, we will find it convenient to use the term lupus as a general designation for several morbid conditions that present certain features in common. The name, however, is one not altogether desirable, as its signification is not well defined, different authors including under it several affections which differ in aspect, in histological characteristics, in course, and in prognosis. Rejecting in advance all affections of a syphilitic nature, we confine the term to certain cutaneous lesions that present a few important common peculiarities. To these affections the Germans have given the names of *Lupus Erythematoms* and *Lupus Vulgaris*, and the French the collective title of *Scrofulides*. The latter designation is the one that we prefer, believing, in common with most writers, that these cutaneous lesions are usually, if not always, dependent upon the somewhat undefined and vague condition of ill-nutrition to which the name scrofula or struma is applied. As the object of the present paper is practical rather than theoretical, we will not attempt to discuss the questions of etiology and nomenclature that under other circumstances might prove interesting.

The principal common features of the different varieties of lupus are: absence of pain or itching, extreme chronicity, ultimate destruction of all the tissues invaded, and difficulty of cure.

As a rule, the most extensive lesions cause little inconvenience to the patients, except by the disfigurements that they produce.

Their chronicity is proverbial. An erysipelas, or an eczema may cover in twenty-four hours an area that it may take as many years for lupus to involve. This is well illustrated by the photograph of F. W., in whom the disease commenced in 1854 (twenty-three years ago), and has been constantly present and slowly advancing up to the date when the photograph was taken (March, 1877). As a rule, however, the progress of the disease is more rapid, but never to the degree exhibited by simple inflammation, by syphilis, or by true malignant processes.

The ordinary clinical features of lupus are familiar to most, are well described in many treatises, and have recently been considered with care, and I believe with substantial accuracy, by myself. Lengthened detail concerning them would therefore be out of place at the present time, and we will pass to the consideration of certain histological points.

If we remove portions of lupus tissue, and harden, slice, and stain them with carmine, we will find on microscopical examination of the stained slices very notable deviations from the appearances presented by the normal tissues. The prevailing feature in all cases is an infiltration of small round cells, resembling the colorless corpuscles of the blood. This infiltration may be simply diffuse, or diffuse with the addition of certain other cells of peculiar appearance. These are many times larger than the small round cells, are polynucleated, and on account of their size have received the name of *giant*-cells. Lastly, the small round cells, instead of being diffusely infiltrated, are collected into certain little clumps or heaps. These three principal histological types found in lupus correspond to three pretty distinctly marked clinical varieties, which differ widely in their appearance, course, and prognosis.

In comparing the microscopical appearances with the cases from which the specimens are derived, we find: First, that the diffuse infiltration corresponds to the superficial forms of lupus, in which ulceration never occurs; second, that the infiltration associated with giant-cells occurs in the deeper forms with ulceration and destruction of the entire thickness of the skin; and thirdly, that the "cell-heaps" are met with in cases that invade the deeper tissues beneath the skin. The diffuse, small, round cell-infiltration met with in superficial lupus cannot be distinguished microscopically from small cell-infiltrations in other affections, for we may find identical appearances in syphilis, and even in simple inflammation. In the deeper cutaneous lupus, characterized by the diffuse infiltration *plus* giant-cells, we again find nothing peculiar, as giant-cells are met with in many scrofulous hyperplasiæ, in syphilis,* and even in normal infantile bone-marrow. The cell-heaps, however, that we find in the deeply ulcerating form are peculiar to lupus, not having been found elsewhere, so far as I am aware. From this we see that there is but a single histological appearance that can with propriety be regarded as peculiar, and this is met with in but a small minority of cases.

To what then does lupus owe its destructive features? It is not to the size or shape of its cells or the manner of their distribution, for in these respects we cannot, as a rule, discover anything not found in other diseases. We must turn, then, from the microscope, we must look beyond the mere morphology of the cells, and endeavor to penetrate their chemical and vital peculiarities.

When we examine the subject from this point of view, and compare lupus with certain other cutaneous affections, we immediately detect important contrasts. A simple inflammatory infiltration may undergo resolution, and disappear in a few days, and leave behind no mark or sign of its previous presence. A syphilitic infiltration may also resolve and disappear in a few weeks, and leave little more than a temporary stain to mark its site. A lupus infiltration in like manner undergoes resolution, but it is only after long months or years; and when this is finally accomplished a scar corresponding to the extent of the lesion is the inevitable result. We see, then, that the important peculiarity of lupus is the extreme viability of its cells.

Another peculiarity is its gradual extension and involvement of new regions by an apparently infective process, similar to, but less in degree than that manifested by cancer. In other words, lupus is an affection that presents a certain degree of malignity, varying in different cases, and always less marked than in true cancer. This infective quality is evidenced by the fact that, if a patch of lupus be incompletely destroyed, the disease will most certainly return.

The infiltration in lupus, after it has existed for an indefinite period, ultimately resolves, probably by fatty degeneration and absorption of its cells. This, however, only occurs after the lapse of years, and

* Read before the Medical Society of the State of New York, June, 1877.

* Colomiatti, Giornal d. Mal Ven e della Pelle, An. x., 1875, p. 334. Browicz, Centralb. f. die Med. Wisch. No. 19. 1877.

while resolution is in progress at points first attacked, there is a gradual progression outward, involving the adjacent regions.

A consideration of these two points, namely, the extreme viability of the cells and their infective quality, gives us a clue to appropriate treatment. The indication is clearly to remove the infiltration as soon as possible, and to remove it thoroughly; to destroy, not nine-tenths or ninety-nine hundredths of the lupous cells, but *all* of them. How this may best be done will now be considered.

Treatment.—Unfortunately we possess no medicinal agents capable of exerting a specific or elective action on the lupous process. There is no question, however, but that mercury, iodine, iodide of potassium, and cod-liver oil exert a beneficial influence. They are both notable resolvents and powerful antistrumics. Phosphorus is another energetic agent capable of influencing the disease. It is, however, a two-edged sword, and one that is to be handled with great circumspection. The principal physiological, or rather pathogenetic, action of phosphorus is the production of fatty degeneration. As morbid growths possess less vitality than normal tissues, it is possible that the phosphorus induces fatty degeneration of the lupus cells, thus favoring absorption when given in doses that are insufficient to produce a like result in healthy organs. If this explanation is correct, and it is the one which seems to me most plausible, it is manifestly proper to avail ourselves of the advantages that it presents, at the same time bearing in mind the possibility that, while we are curing the lupus, we may also be killing the patient. We have seen brilliant cures (?) of cutaneous affections accomplished with large doses of mercury, iodide of potassium, and arsenic, but at the expense of the future health of the patient, and there are indications that phosphorus is at the present time being used to excess. While, then, we acknowledge the power of phosphorus, we cannot unreservedly recommend its use.

The above mentioned comprise the internal remedies most useful in lupus, but we cannot depend upon them alone, as they will, if unaided, rarely if ever effect a cure. Our main reliance is upon external treatment.

The various methods at present in vogue fall into three categories. The effort is made either to produce absorption of the lupous cells, to remove them mechanically, or to destroy them *in situ*. The first of these methods is the oldest, and is the one that has been most frequently practised. Absorption of the infiltration, when limited, may sometimes be procured by strong alkaline applications, *e.g.*, Sapo viridis, liq. potassæ, or stronger solutions of caustic potash, or by acids, such as the glacial acetic and mono-chloracetic acids. The biniodide of mercury in ointment is also employed for the same purpose. As the details for the employment of these agents are given in the text-books, their special consideration at this time is unnecessary. This method, whatever agent is employed, is tedious, painful, and uncertain.

The mechanical removal of the cells is a plan that has recently come in vogue. It is effected by means of a small sharp-edged spoon (spoon exhibited), with which the infiltration is scraped out. The morbid tissue yields to the scraper more readily than the healthy, and a very considerable portion of the infiltration can be thus removed mechanically. If all of it—that is, every cell—could be thus scraped out, this method would be a simple and a good one. Unfortunately, however, this can rarely be accomplished, and in the great majority of instances relapse occurs. The result is somewhat better if, after the scraping, pure chloride of zinc is applied to the denuded surface, but, even after this, relapse is not infrequent. The only mechanical means that can be relied on is complete excision, and, if any doubt exists as to the thoroughness of the operation, the chloride of zinc should also be applied to the wound. Excision, when practicable, is certainly the most reliable and in every way best method of treatment. In the majority of cases, however, it is not practicable, and consequently other means must be employed.

The destruction of the cells *in situ* may be accomplished in several ways. First, by boring into the diseased tissues with the solid nitrate of silver in pencil-form or fused upon a probe; second, by arsenical pastes; third, by the actual cautery. The first is well adapted to lesions of limited extent, and is often successful. The arsenical treatment is likewise efficient, and if properly performed it is perfectly safe, but is exceedingly painful. It is only adapted to small patches, or, if the patch is large, to successive portions. The arsenical and nitrate of silver methods have been often described, and are, or should be, well known. In the actual cautery we also possess an efficient agent. If the lesion is very superficial a thorough cauterization at a *white* heat will be sufficient to effect a cure, and will leave a very good scar. If the lesion is somewhat deeper, a less degree of heat, say a red heat, will penetrate more deeply, and destroy the lesion, but the ulcer left by the fall of the slough will be slower in healing, and the cicatrix will be more retractile—a very important consideration when the disease is situated upon the face. That this method will not always succeed is evident from the case of F. W., to whose face three applications of the white-hot cautery were made during a period of two months. A portion of the lesion has been destroyed, but the lower part of it still exists. This is well shown in the photographs.

Of all the methods mentioned, it might be expected that we would find at least one that could be generally relied upon. This, however, is not the case, and if we remember that a permanent cure can only be expected by getting rid of every lupous cell, and that we must accomplish this without inflicting too great injury upon the adjacent healthy parts, we can readily understand the difficulties to be encountered.

A somewhat varied experience has finally led me to a method, or rather combination of methods, that can, I think, be relied upon in almost every case. The plan that I would recommend is to *thoroughly scrape out as much of the lesion as possible, and then to cauterize the floor and edges of the wound with the actual cautery at a white heat.*

The following cases treated by mechanical measures illustrate some of the points alluded to in this paper:

I.—J. S.; lupus of eight years' standing. Principal lesion in region of left eye, several other foci of disease. In the early stage of the disease caustics were applied with relapse and aggravation; in an advanced stage excision and cauterization with pure carbolic acid; relapse; two tubercles on chin excised (histological character, "cell-heaps"), without relapse; one tubercle on forehead scraped and solar cautery, without relapse. Ultimate termination, death by phthisis pulmonalis. (Illustrated by five photographs.)

II.—McG.; lupus on the side of the nose; excised; no relapse. (Illustrated by diagram.)

III.—O'C.; lupus of nose; excision (histological character, diffuse infiltration, with giant-cells); relapse; relapse treated with pure chloride of zinc; no relapse at end of two months. (Two diagrams.)

IV.—J. A.; lupus of temple; excision (histological character, cell-heaps); no relapse at end of eighteen months. (Illustrated by diagram.)

V.—R. L.; lupus of face, fifteen years' duration; three foci of disease; one excised (cell-heaps); no relapse; the other two scraped, and chloride of zinc applied; in both instances relapse. Later, one of these was scraped and the actual cautery applied without relapse; the other was excised and the actual cautery applied without relapse. A fourth lesion, which had appeared subsequent to the first operations, was scraped and the nitrate of zinc applied. This relapsed and the ultimate termination of the case was death by phthisis. (Illustrated by three diagrams.)

VI.—Lupus of the scalp; scraped, followed by relapse; later, scraped and actual cautery; no relapse.

VII.—E. S.; lupus on cheek; scraped and chloride of zinc; relapse; again scraped and actual cautery; no relapse.

VIII.—L. W.; lupus of penis; four foci; one excised (histological character, diffuse infiltration): no relapse; three cauterized with actual cautery. In two no relapse; in one relapse; recauterized; no relapse.

IX.—F. W.; lupus of twenty-three years' standing; three applications of white-hot cautery; partly cured; subsequently scraping and actual cautery; still under treatment. (Two photographs.)

X.—T. G.; lupus of nose and upper lip, three years' standing; scraped and cauterized in sections; no relapse. (Two photographs.)

The comparative efficiency of the various methods of mechanical treatment employed in the foregoing cases may be summarized as follows:

	Successful.	Unsuccessful.
Scraping and chloride of zinc...	0	4
Chloride of zinc (very small and superficial lesion).....	1	0
Scraping and nitrate of zinc.....	0	1
Actual cautery.....	4	2
Excision.....	6	2
Excision and actual cautery.....	1	0
Scraping and actual cautery.....	4	0

A number of cases (of which I have not kept notes) treated by some of the above methods, and several cases in which the ultimate result of treatment is unknown, are not referred to. It will be seen, however, that success is in direct proportion to the thoroughness of the operation, and that our effort should be to remove every lupous cell. This is to be effected by excision when practicable. In other cases scraping, followed by the actual cautery at a *white* heat, gives us the best assurance of success.

A FEW REMARKS ON, AND CASES OF SUCCESSFUL CALCIFICATION OF TUBERCULOSIS OF THE LUNGS.

By C. BOTH, M.D.,

NEW YORK.

In order to meet the request of various medical men, in different parts of the country, to describe the mechanism of my plan of treatment, I would say that the mechanical treatment for *clearing* the lungs and the *re-establishment* of vesicular respiration consists of three different exercises, which follow each other as the strength of the patient permits. I. The patient is placed in an erect position, with both arms extended, horizontally, on the level with the shoulders. In this position he advances towards a corner of a room, when the hands are placed flat upon the wall, the body is moved slowly forward into the angle, the hands gliding upon the wall. The arms must not be bent, and the spine must be held erect. The actual contact of the patient's face with the corner is hardly ever accomplished on the first attempt; however, he is urged to get as close as possible. He is then told to bend his elbow-joints, and to pull himself slowly back again by the power of the pectoral muscles. The hands to remain on the spot where they were. This exercise stretches the chest very much across the clavicles. Patients are told to do this from six to twelve times per day. Muscular pain across the chest is the next consequence. In about a month the patient should have gained sufficient strength to begin the exercise No. II. This consists in the same movement, with the body in a horizontal position. The patient lets the body *slowly* sink towards the floor, as far as his strength permits. The hands rest upon two chairs placed at a distance of four to five feet, and secured. The whole weight of the body rests upon his two hands and his toes. He having approached the floor as near as he can, is then told to pull himself up again as slowly as he sank. This is a very difficult exercise and makes the muscles tremble; involuntary deep inspirations follow it immediately. In about three to five months the third and last exercise is commenced. The patient is placed in the middle of a room in an erect position. *One* arm is lifted at the time, as in exercise No. I. This horizontally stretched out arm is reversed in a circle around its axis as if no body was in the way. Of course, when the arm comes in front of the chest, the spine has to be bent backward so as to make room for the arm to revolve. This exercise is very difficult and affects every muscle in the body. In all these exercises the knees must never be bent, the epigastric region not allowed to incline forward, and the respiration not interrupted at any moment. The last exercise gives the finishing touch to the lungs, and a patient advanced to do it is considered an absolutely curable case. The first is generally dropped as soon as No. II. is learned. These exercises should raise the pulse momentarily about ten beats and no more; it must return to its previous height after a few minutes of rest. Although a healthy man cannot do these exercises well on the first attempt, consumptives learn to do them with the greatest ease and comfort. The purpose is to clear the bronchi and alveoli of phlegm, so as to induce the meshes of the elastic tissue to open and shut again. In other words, recreate respiration in the diseased portions.

I have been urged to state some cases cured by my method. I am well aware that in a disease which is generally voted to be incurable there is a great difficulty in convincing the skeptical, and that there is always a doubt about the diagnosis and a suspicion that imagination is overactive. Finally, it may be said that such cases might have recovered by accident and not by any particular plan of treatment. For these reasons I shall simply mention a few selected ones which have been seen by other medical men, before, during, or after treatment, and which seem to me as excluding mere accident.

Mr. F. L. Lay, an artist, consulted me in the winter 1857–58 in regard to various hemorrhages from which he had been suffering, and a continued cough of several years' standing. In my opinion he had tuberculosis in both apices. After thirteen months' treatment I discharged him as cured. He remained well until the spring of 1864, when he consulted me about a very disturbed digestion, with severe headache. This headache resisted all treatment, both by me as well as other physicians, until after the fifth month it affected his

sensorium. He then began to fail rapidly. Severe cough with abundant expectoration returned. Pulse very low. Dr. Cabot, surgeon to the Massachusetts General Hospital, saw him in September, considering him a hopeless case. So did I. He was reduced to a skeleton; delirious for nearly two months. There seemed to be an almost entire paralysis of the sympathetic. He finally completely recovered, and is living to day in Frankfort-on-the-Main. I presented this case several times before the Gynecological Society of Boston, and Dr. H. R. Storer's classes. I supposed this last affection to have been a secondary tubercular meningitis. The dulness of percussion in the apices has remained the same for twenty years. This patient is not only perfectly well, but remarkably strong.

Mr. N. P. Merritt, a clothing merchant of Boston, came to me in 1861, after having been obliged to discontinue business for five years. After six months under my method of treatment he was able to resume business, and gave up treatment after nine months, against my wishes. I lost sight of him until February, 1864, when I found him much reduced from a four months' continuing diarrhœa, during which time he was under the care of Drs. Read and Henry I. Bowditch. I gave him the pure juice of twenty lemons, after which he had a large watery discharge containing pieces of mucous membrane, decayed follicles, and pus. After that the diarrhœa ceased, but he died of nervous exhaustion eighteen days afterwards. The autopsy revealed fifteen incapsulated abscesses in his lungs, from the size of a pea to that of a walnut. The mesenteric glands, being secondarily affected, caused his diarrhœa and death. Specimens of these lungs are in my possession, exhibiting to the naked eye the re-entering of air in between the affected lung portions.

Mr. W. S. Craibe, head clerk of the St. Denis Hotel, New York, came to me in December, 1866. Prof. Willard Parker had sent him home for acute tuberculosis; and his family physician, in consultation with Dr. Calvin Ellis, of Boston, prognosticated his death inside of three months. On the 1st of April, 1867, he re-entered upon his duties in the St. Denis Hotel. Dr. W. Parker, to whom I sent him for re-examination, found his lungs in the same condition. Dr. Krackowizer pronounced him, after careful examination, a case of real tuberculosis. In September of 1867 Dr. Krackowizer admitted that he was much better, but could never recover so far as to be taken by a life insurance company. In February, 1868, I had him examined in the New York Mutual, the Germania, and, I believe, the Globe Insurance Companies; all three were willing to accept him as a fair risk. He got married in 1870, and died of small-pox in Boston in 1872, having been on duty till suddenly attacked by small-pox. He was buried ere I heard of his death.

Mr. Joseph Hoizmeister, a medical student of Vienna, Austria, came to Boston in 1868 for treatment. Had been a patient of Dr. Luzinsky, in consultation with Profs. Rollett and Löhl, of Vienna, Dr. v. Hansen, at Gleichenberg, and Prof. Dr. Helfreich, of the Würzburg Hospital, all of whom had advised him to live in Madeira. Dr. Lothar Voss, then in New York, examined him while here. After seven months he returned to Germany so much improved that his physicians were surprised. He resumed his studies. In 1870 he went on a hunting expedition, contracted acute peritonitis, and died in two weeks. I was informed that upon autopsy his lungs had been found completely calcified. Whether this peritonitis was a primary or a secondary affection I have not been able to ascertain, but from the suddenness of attack I suppose it to have been independent of his previous tubercular affection.

Mr. George Smith, of Auburndale, Mass., a merchant of Boston, came to me in April, 1872, in a very precarious condition. Besides many other physicians, had been a patient of Dr. H. I. Bowditch. Pulse 120 to 130; besides his lungs denoting the usual dulness, crepitation, and catarrh, his abdomen was very sensitive, and there had been expectoration of pus for over two months. In 1874, after having resumed his business for over a year, and being able to row a boat containing three persons for ten miles, I sent him to Dr. Bowditch for examination. Dr. B. wrote me as follows: "As the patient has new signs of trouble in one lung which did not exist (according to my record) when I saw him, I must decline considering him cured." Mr. Smith is in business to-day, and resides in Auburndale, apparently in as good health as most other people.

Mr. B. I. Baker, 47 Wall Street, New York, became my patient in 1868. Had been examined by Drs. Bradley and T. F. Allen, of New York, and Dr. Hadden, of Jersey City. The Homœopathic Life Insurance Company refused to insure his life for $1,000 in 1868. He is now insured in the New York Mutual, his policy, dated May, 1874, mentioning him as a first-class risk.

Although ladies generally present more difficulty for treatment than men, by being fretful and whimsical, the quickest records of recovery are among them. Mrs. H. T. Ch., wife of a Boston importer, became my patient for lung disease in March, 1862, and was discharged as well in July of the same year. She is well to-day. She lost most all her family by consumption. Dr. Langmaid, of Boston, is well acquainted with the case, as well as the tendency of her family to consumption.

Mrs. R., wife of a lawyer in Rochester, New York, was referred to me by Dr. Knichling on the 2d of July, 1873, and discharged as cured on the 18th of August, the next month. She is well yet. Both her physician as well as her family had been much alarmed about her.

Mrs. W., wife of a wealthy farmer, was sent to me by Dr. P. G. Clark, of Rochester, New York. She made a very quick recovery in three months, and is well to-day, as far as I know.

In mentioning these cases I have purposely left out my own opinions and diagnosis, simply mentioning such physicians who happen to know the cases for reference. Any one doubting the reality of them can easily ascertain the facts.

I am sorry to have omitted measuring the chests of my patients before and after treatment, of which I was reminded by Prof. Lewis A. Sayre. This never occurred to me, as the internal structure of the lungs occupied my thoughts much more than external changes, but I know that the form of the thorax changes in all of them. I omit measuring the temperature, because I consider it worthless; it is too changeable, does not help me in regard to the calculation on the changes of the blood causing it, and is apt to trouble and disturb patients unnecessarily. I admit that such is useful in acute affections of serious nature, but in chronic diseases, especially consumption, it is without purpose. If the pulse and temperature in consumptives do not fall to normality in a certain given time, I arrest all treatment, and let the patients enjoy their last days in peace, simply preventing suffocation. All cases which I have lost have died of nervous exhaustion, the sympathetic failing to help; without struggle or painful sensation, not generally even being aware of the approach of death.

My entire attention in curable cases is to the *digestion*, the expectoration, and the *pulse*, which latter must be as regular as a chronometer. The expectoration is at first of a bronchial character; afterwards it has a wormy appearance, with grape-like bunches, oftentimes tinted with blood. This shows the clearing of the bronchioles and air-vesicles, and is very favorable. From the fact that no lung can heal until previously cleared of phlegm and pus, and accessible to air, it is not so much the more or less affected lung which decides a favorable or unfavorable prognosis, but the power of the sympathetic nerve, without which nothing can be accomplished. It is the same as with recovery from capital surgical operations. A case now under treatment may illustrate this: Mr. H., a New York merchant, became my patient in October, 1876. Has been lung sick for ten years; lost a brother and a sister with consumption; has been examined by Drs. A. Flint, Alonzo Clark, and is a regular patient of Dr. Tucker, in Twenty-sixth Street, New York. Right upper lobe presented a cavity two by four inches; right lung completely filled with tubercles; right pleura filled four inches with exudation; left upper lobe tubercular; left lower the best one in the chest. Has been through the routine of all medication, climates, etc., for the last ten years. Had serious fever during the summer of 1876, in Colorado. Felt better after returning. Pulse high and fluctuating—as high as 124; looked remarkably well in the face, considering the serious affection of his lungs. This patient, with the exception of three days, when I ordered him to bed, has been out every day and evening during the winter, without catching a single "cold;" lost at first four pounds, which he has regained now; the exudation in the pleura is gone; left lung free; right lung clearing slowly, but surely; the cavity is reduced more than half its former size; pulse below 70 in the morning.

In spite of his very much diseased lungs and cavity, this patient has steadily improved, and I expect to let him do business in the fall, and discharge him about the 1st of January, 1878. If such a recovery is accidental, it is certainly a very peculiar complication of happy accidents.

In regard to the difficulty regarding prognosis, the following two cases may be interesting: Mr. B., a merchant of 51 New Street, New York, became my patient in October, 1876. Mr. G., a member of the New York Stock Exchange, on the 3d of January, 1877. The extent of the affected lungs were alike in both cases. One lost a brother of consumption in Madeira, in 1875; the other a sister, in the same year. Dull percussion in both apices to third rib; moist crepitation; destruction of tissue in left upper lobe. Muscles in both lax and powerless. Digestion in both completely out of order. Only the pulse showed a marked difference; in the first case, the pulse was 135; in the latter, only 84—also the expectoration varied; in the one, appearing of a more fibrinous, the other a more albuminous nature. The first case, with a pulse of 135, left New York on the 24th of May for a pleasure trip, and is expected home in October, to resume business. The sympathetic nerve in the other refused. One morning in April he smoked a cigar, after which he fell asleep and did not awake again. To all appearances the prognosis was even in these cases. In fact it was more favorable in the second case; but the nerve in the first held out long enough, while in the second it did not. This difference in the nervous power of patients used to perplex me much years ago; and to-day I have not yet discovered any means to ascertain this power, except by testing the case for at least two months. While the curable cases advance steadily, the lost ones come a to dead stop, when they visibly fail from nervous exhaustion.

The great importance of the sympathetic can best be observed in digestion. The slighest mistake in the diet, in the selecting or missing of certain food, a mental disturbance, is sufficient to upset a case for hours, sometimes for days. The cough at once becomes tight, and the pulse rises. If things are not rectified at once, fever will appear soon after, with night-sweats following.

With these necessarily roughly sketched illustrations, I hope to meet the request of those who have addressed me in regard to the matter. Their insufficiency rests in the difficulty to *tell* what should properly be *shown*.

Astonishing to me is the yet predominating idea that chronic lung affections are absolutely incurable. From a historic point of view this is excusable, but not from an anatomical one. If we compare a moment the microscopical anatomy of the lung with that of the muscular tissue, we find a great similarity. We find in the lung all the restoring resources which we have in the muscles—connective-tissue, with meshes, nourishing and absorbing blood-vessels, nutritive and motory nerves, in short, all we find in a muscle except sensitive nerves; but this does not warrant an exclusion of restorative properties. A tissue cell of the lung is as capable of forming new cells as a muscle tissue cell. Nor does the present condition of science warrant the acceptance and maintenance of a specific blood diathesis in tuberculosis. Virchow, long since, has proven that the blood is utterly unable to hold or retain septic or putrid liquids. No author of former days, nor any of those upholding the germ theory of to-day, have ever been able to *prove* or show the least *fact* warranting the specific blood disorder, or specific germ in tuberculosis or other chronic affections of the lungs. The cheesy degeneration of the glands is a secondary affection; if blood-poisoning occurs in tuberculosis, so is it the *consequence*, and not the origin, of tubercles, which should be termed miliary abscesses. (See my classification of blood-poisoning, *Journal of the Gynecological Society of Boston*, December, 1869, page 356.) These facts are now corroborated by all modern pathologists. (See Waldenburg, *Die Tuberculose*, Berlin, 1869, page 465.)

The only reason for accepting the incurability can lie in the fact that thus far all therapeutical agents have failed. However, this is not astonishing, if we glance over the means that were employed? The mechanism of respiration has never been satisfactorily explained; the remedies recommended were either based on wrong conceptions, or they were very imperfectly applied. Our very best medical authors have tried again and again to succeed after failure upon failure, because they felt morally satisfied that such was possible. A man may fail with a correctly calculated agent if employed under wrong conditions; *i.e.*, we will suppose lime is necessary for calcification. We therefore prescribe correctly organic lime, but we forget to clear the lungs, and we fail of course. Or we clear the lungs and forget the lime—we fail again. Or we do both, but fail to balance equivalent absorption and excretion—we must fail again. And if we accomplish correctly all, and the nervous power is lost, we fail again in spite of correct CALCULATION OR APPLICATION, for we depend upon favorable CONDITIONS, without which all is useless.

Dr. Oakey, Jr., of Providence, R. I., a graduate of Harvard, has tried my method with so satisfactory results that he has disavowed homœopathy entirely, much to the disgust of the old gent. who is the most fashionable homœopathist in Providence.

Progress of Medical Science.

Contraction of the Palmar Aponeurosis.—At the meeting of the *Société Anatomique*, on March 9th, M. Richer read a paper on this subject, his remarks being based upon the appearances presented by the hands of an old man, whose body had been found in the dissecting-room. The lesion was symmetrical, and affected both hands almost equally. It was most marked in the fourth finger of the left hand. This finger was flexed into the palm of the hand, and could not be extended beyond a right angle with the metacarpus. A firm cord, analogous to the tendon of a contracted muscle, extended from the root of the finger to the base of the hand, and, on attempting to extend the finger, this cord became more tense. The two terminal phalanges of the finger had preserved their normal mobility. The little finger could not be entirely extended; at its base there was a small induration, from which extended a cord, which could be discovered only by the sense of touch, when the finger was forcibly extended. This cord joined obliquely the cord on the ring-finger. The medius also could not be extended completely, on account of the tension of the interdigital commissure. At its base, as well as at that of the index-finger, there was some induration, and the skin was adherent to the palmar fascia.

On dissection, the skin was found to be normal. The subcutaneous fat had disappeared in the neighborhood of the cords and indurations just described. The palmar aponeurosis opposite the ring-finger presented a very hard, rough, fusiform swelling, from which a ligamentous cord extended to the base of the finger. The fibres of this cord were inserted partly into the skin on the palmar surface of the first phalanx, partly into the sides of the phalanx, where they seemed to be mingled with the tendons of the interossei and the extensors. Opposite the other fingers the aponeurosis was thickened at the spots which were adherent to the skin. The interdigital fibres of Gerdy, which subtend the commissures of the fingers, appeared to be more numerous and tense than normal, between the little, ring, and middle fingers. Below the aponeurosis all the tissues were healthy. The articulations were normal, except for some erosions of the cartilaginous surfaces, and the tendons played freely in their sheaths.

The right hand was affected in an entirely similar manner, but in a slightly less degree than the left. Both elbows presented the lesions of an arthritis sicca —osteophytes in the lateral ligaments, and erosions of the cartilages. Microscopical examination of the retracted and thickened portions of the aponeurosis showed everywhere bands of tendinous tissue, which were simply more numerous and more densely crowded together in the retracted cord. The elastic fibres also seemed to be more numerous and larger. The skin was perfectly normal. Hence there were no traces of inflammation in the retracted parts.

A short discussion followed the reading of the paper, in the course of which M. Després maintained, in opposition to M. Richer, that the retraction was due to subcutaneous cicatrices, or to a traumatic inflammation of the aponeurosis. He called attention, in support of this view, to the frequency with which the affection is met with in joiners. M. Charcot, without absolutely contesting M. Després' statement, maintained that the retraction of the palmar aponeurosis is most frequently spontaneous. He pointed to the facts that it is from the beginning bilateral and symmetrical, and that all operations performed for its relief have proved useless. It sometimes occurs in persons who have never used their hands for manual work.—*Le Progrès Médical*, May 12th.

Trepanning for Fracture of the Skull.—As a contribution to the literature of the operation of trepanning, Prof. von Linhart, of Würzburg, reports the case of a young soldier, who was admitted into the Julius Hospital in 1866, suffering from a lacerated wound of the scalp and fracture of the parietal bone and of the squamous portion of the temporal bone. As the bone was not depressed and the symptoms were slight, the wound was merely dressed and the patient put to bed. On the second day twitchings in the muscles of the face and limbs were observed, which gradually became more severe, and on the third day well-marked epileptic attacks set in. These attacks lasted 10 or 15 minutes, and recurred almost every 10 minutes. On the next morning the Professor trephined the patient as an exploratory measure, and found a small, pointed splinter from the vitreous table firmly imbedded in the dura mater. This was seized with forceps and removed with some little difficulty. As there was but little depression of the fractured bone, no attempt was made to elevate it. The patient recovered quickly from the coma, and had no more epileptic attacks. Fourteen days after the operation he was able to be moved to his home.

In spite of this and some other successful cases, Prof. Von Linhart does not believe trepanning, either primary or secondary, to be of such great value as is claimed by many writers. His opinion is based on the facts that he has seen many desperate cases recover without the operation, and on the other hand has been convinced by many operations and post-mortems that trepanning alone will neither prevent nor cure a traumatic meningitis or encephalitis.—*Centralblatt für Chirurgie*, May 19th.

Acute Yellow Atrophy of the Liver.—Dr. Daly has contributed the report of a case of acute yellow atrophy of the liver, which is specially interesting in connection with the theory that one function of the liver is to destroy poisonous matters in the system. He was called to see a married woman of thirty-eight, who had six children, the youngest of which she was then nursing. Suffering from jaundice, she had been for some days under medical treatment. The tongue was coated, pulse 90, and temperature 99.2° F. There was loss of appetite; the bowels were constipated; the stools pale, but not white; the urine full of bile; the skin and conjunctivæ slightly yellow. No pain was felt anywhere. The case was held to be one of catarrhal jaundice, and was so treated for four days, when suddenly delirium set in, with muscular twitchings; urine and fæces were passed involuntarily; the pulse was 140, and the temperature 104.6° F.; the gums were covered with sordes, and the breath had an abominable odor. Acute yellow atrophy was suspected, but as yet there had been no decrease in the liver dulness. The following morning (the fifth day of attendance) the area of dulness had decreased remarkably, and in the evening the percussion sound was perfectly clear over the entire hepatic region. The patient died during the night. The cause of the disease was ascribed by the family to drinking impure cistern water, an opinion in which the physician and Dr. Murchison agreed. Several others of the family were also sick about the same time, and one of the children, a girl of seven, had jaundice, but she recovered after brisk purging. Possibly she escaped acute yellow atrophy because, according to Niemeyer, children do not have it.—*The Lancet*, May 19, 1877.

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New York, July 21, 1877.

ABUSES OF MEDICAL CHARITY.

THERE is a movement on foot in the city to organize a society for the control and suppression of the existing abuse of medical charity. No more opportune time than the present could have been selected for the scheme. Never before in the history of medical practice has the question assumed such an importance, as bearing upon the actual livelihood of a large class of stuggling physicians. It is an acknowledged fact that professional incomes have decreased within the past two years. Under the circumstances this could hardly be prevented. Aside from the healthfulness of the season, the physician does not have so much to do as formerly, because even those of his patients who are sick have fallen into the habit of economizing on his services. In many of the cases in which he might have been called, he is not sent for at all, and a surreptitious dose of castor-oil, and a few mustard plasters, or catnip tea, or a gin toddy, does the business. And some of the best-paying patients are not ashamed to say that it is too expensive to be sick, and that the necessity of sending for the doctor is a positive pecuniary calamity. The physician is, in fact, looked upon more as a necessity in extreme cases than as a luxury in trivial ones. Many of the leading practitioners have had their incomes reduced one-third, while others have suffered a reduction of almost one-half by such an understanding on the part of their patrons. It is not because there are not as many sick as usual, but that, for pecuniary considerations, these patients are willing to run some risks rather than incur frequent professional visits. But, as we have before intimated, this is the result of a natural stringency in money matters, and cannot possibly be prevented. The association of the shrinkage of incomes with the abuses of charity is, however, of more importance, because it involves the possibility of a remedy. The managers of the charities are more to blame for this condition of things than those who take advantage of them. There is at present more than the ordinary temptation to save expenses in everything. It can hardly be done in food and raiment, for neither the butcher, the baker, nor the tailor believe in giving to the poor for charity's sake. But the doors of the dispensaries stand open to receive every one who may choose to enter and obtain the benefits of gratuitous treatment. The number of applicants to these charities are increasing every year, and the profession is getting poorer and poorer. In olden times no one expected dispensary or hospital treatment, who could afford to pay even a small fee. Now the excuse of hard times is unblushingly offered by thousands, who cheat the practitioner, not only out of small, but not infrequently out of large fees. It is an old story to tell of hundreds of men and women who have incomes which would make the poor doctor absolutely independent, and yet who have recourse to the dispensary for free medical treatment. It is preposterous to assume that this abuse cannot be corrected by even ordinary care on the part of those who have such matters in charge. That it has not been done long ago is, perhaps, as much the fault of the medical gentlemen attending these institutions as any one else. The managers of these charities have no reason to complain of the number of persons treated, so long as professional services are so freely thrown away for the sake of clinical advantages. And this is a difficulty which is almost insurmountable in the way of necessary reform. In fact, we believe, if some of our dispensary and hospital attendants were compelled to restrict their services only to worthy applicants, they would rebel at once against what they would perhaps call a conspiracy against their legitimate clinical opportunities. In more than one dispensary in this city there are specialists, who quiet their consciences by never asking their dispensary patients whether they are able to pay a physician or not. Although this is downright professional swindling, and is placing a premium upon the fraudulent cupidity of a large and constantly increasing community, it is quietly winked at even by college professors, and is regarded as one of the necessities of advancing medical civilization.

But the real sufferer from all this manœuvring is the practitioner who is content with moderate fees, for whom bread and butter in hand is a positive necessity, and who cannot afford to trust to the chances of making a distinguished reputation in the future. This class is a very large one, is composed of hard and conscientious workers, and deserves some consideration from their more prosperous brethren. We are a little doubtful that they will obtain much of a show, considering the avowed and greedy selfishness of those who hold hospital and other similar professional appointments for individual advancement. If the new association to which we refer can succeed in arousing a sentiment of fair play on the part of some of the clinical monopolists, it will not have been organized in vain.

The crying necessity is for a radical change in hospital and dispensary management. In meeting such a requirement there is not the slightest danger that the poor will suffer. Even if all the dispensaries were abolished and the doors of all the hospitals closed, the needy would still have the requisite attendance. There is not a young practitioner in this or any other large city who would not be willing to attend the poor gratis in his own office, or visit them at their homes, provided he could be guaranteed against being cheated out of those fees which are lost in the mistaken and false charity of dispensary and hospital practice. But nothing can be done to effect any change in the present state of affairs, unless some parties really interested take hold of the question with a distinctly avowed purpose. The agitation of the question of the Medical Provident system had a tendency in this direction, but it has evidently amounted to nothing. This result has obtained because such a scheme as might be devised in connection with the provident plan might not work advantageously, but because the matter is unfortunately in the hands of those who are more or less indifferent to the pressing claims of the despairing professional bread-winner.

The best hope of reform rests in the efforts of men who shall be willing to work to correct the abuses; to go out of their way to detect frauds and to bring the same to the notice of the board of managers, and of the medical staffs of the different infirmaries. It is to the interest of the men who are really suffering as the result of the different abuses to follow up unworthy cases, even to the doors of the dispensaries, and into the wards of the hospitals, and enter a protest against their being treated as deserving objects of charity. By well-organized and permanent efforts in this direction, a sufficiently strong professional and public sentiment may be created to make it hazardous for any medical or other officer of a hospital or dispensary to knowingly admit to the benefits of the charity any patient against whom suspicions of pecuniary competency can be entertained. If the association which is being formed in this city is to be composed of this sort of working material, it can from the start be assured of the active and willing support of the rank and file of the profession.

Male Wet-Nurses. — The *Journal des Sages Femmes* has a notice of a German physician in Pomerania who makes a specialty of supplying wet-nurses. He excites the secretion of milk, not only independently of pregnancy, but in men as well as women. An applicant for a wet nurse is always asked whether a *male* or a *female* is desired. The former is preferred by some families, under the belief that greater vigor is thus imparted to the infants.

Human Milk for Sale.—Chinese women sell their milk for about fifty cents per pint. The milking is performed in public to insure purity. It is highly esteemed as a nourishing food for old people and consumptives.

Reports of Societies.

AMERICAN NEUROLOGICAL ASSOCIATION.

Third Annual Session.

Wednesday, June 6th.—Afternoon Meeting.

The American Neurological Association convened at the College of Physicians and Surgeons, in New York city, June 6, 1877, and was called to order at 2.30 P.M., by the President, Dr. J. S. Jewell, of Chicago.

As the minutes of the preceding session had been printed and distributed among the members of the Association, on motion, their reading was dispensed with.

ANNUAL REPORTS.

Dr. E. C. Seguin, of New York, Secretary of the Council, made the Annual Report, which was adopted.

Dr. J. J. Mason, of New York, Corresponding Secretary of the Association, made his report, which was accepted.

Dr. E. C. Seguin, Recording Secretary and Treasurer of the Association, made his report, which was accepted.

At the recommendation of the Council, the resignations of Dr. J. W. S. Arnold, of New York, and Dr. F. D. Lente, of Florida, were accepted.

It was voted that the Recording Secretary present Dr. William Detmold the thanks of the Association for the use of the room.

Dr. William A. Hammond and Dr. N. B. Emerson submitted new by-laws.

THE COMMITTEE ON NOMINATIONS,

as appointed by President Jewell, was as follows: Drs. Miles, of Baltimore; Shaw, of Brooklyn; Kinnicutt, Cross, and Emerson, of New York.

The business of the first meeting having been completed, the

INAUGURAL ADDRESS

of the session was delivered by the President Dr. J. S. Jewell.

The following is an abstract of the address:

"Gentlemen of the American Neurological Association:—At this our third annual meeting, it has seemed to me appropriate that I should deliver at its opening a short address, as a means of enabling me to discuss certain matters which can hardly find suitable expression at any other time, or in any other way. The nervous system in its totality, which is professedly the object of our consideration, has striking peculiarities as a field for scientific and practical study. From whatever standpoint it may be considered, more unexplored territory lies within the confines of the spinal cord, medulla, and brain than in any other part of the organism. There is not a part of the body, it is probable, into which it does not penetrate, and hence, with which it does not establish relations. This is, on the one hand, for the purpose, so to speak, of being always informed as to the varying conditions of all parts of the organism, and on the other hand, for the purpose of exerting an influence upon the same. While it is, in the strictest sense, a special field, it is so happily situated as to give those who enter and cultivate it in a rational spirit no excuse for that narrowness of thought and sympathy so often and so unhappily found among those who cultivate specialties.

"Such, in brief, is the field of our study. In its culti-

vation for the future there are several things I should be glad to see realized.

"The first is, that in this country, henceforth, more attention and encouragement may be given to a thoughtful study of the healthy anatomy and physiology of the nervous system. No doubt there are many now among us who are endeavoring to keep pace with the progress in these fundamental departments of neurological science, and some few endeavoring to confirm or enlarge the boundaries of actually existing knowledge; but it cannot be denied that thus far very little, comparatively, has been done and made public, in our own country, towards advancing a knowledge of the normal anatomy and physiology of the nervous system. The reasons for its neglect thus far, whether good or bad, have now in a great measure passed away. The time has now come—and with it the opportunities—when we should undertake to make some solid contribution in this department of our work. To excite and encourage, and beyond this to prosecute such researches, should be one chief object of the existence of such a society as ours.

"Then again we need not less experiment, but more care as to the method and results. There can be no question in my mind that there is, relatively speaking, too little close, accurate thought, as compared with the mere observation of facts. The mere discovery of a new fact by sense of observation does not insure that the discoverer will ascertain its significance. What I mean to declare is, that mere sense observation has outstripped, and does this very hour outstrip, critical, careful thought. What we need is, not mere observers nor mere thinkers, but more men, who, like Bacon, Harvey, Bichat, and others, can not only observe, but, like them, think. I would be glad to see this Society in its work avoid with a set purpose this unfortunate course.

"With due respect to those who have labored in less favored times, I wish to see less reliance placed on the records of pathological cases, as they exist in the literature of the past. With a better knowledge of the anatomy and physiology of the body, with a broader range and basis of established facts than ever before, and with greatly improved methods for research, we are able happily to lay a surer foundation, let us hope, for trustworthy deductions.

"I want now to lay before you a few practical suggestions as to the organization and working of the Society.

"I am now, as I have been from the first, of the opinion that the Society is about as large as it ought to be until it has lived a little longer and done more good work. I do not say no new members should be admitted, but for a time let them be few, and admitted with caution. Then, again, the Society should continue to hold its next few meetings in the East. The bulk of its members must for a long time be here, and also the means for rendering them attractive. It should meet either in this city, Boston, or Philadelphia, or, what may be thought better, in some adjacent place of resort. Then again, the time of meeting of the Society should be so changed as not to conflict with other important meetings, which many of our members might feel like attending. I would suggest that the meeting be postponed till the second or last week in June, or until September. In regard to the publication of our papers and discussions: The only things to be done are either to publish an inexpensive account of the proceedings and abstracts of discussions and papers, or to publish a volume of transactions. Of these two plans the latter is every way preferable. A subscription of from fifty to one hundred dollars from each member would completely insure the appearance of the volume. To render the work of the Society more effectual, I would recommend a diminution in the number of officers, who should, as now, be aided by a council in discussing purely business questions, which should rarely, if ever, occupy the attention of the Society as a whole; and that the Secretary be charged with the not very onerous duty of editing the materials, employing such aid as he may need. I would also suggest the propriety of the appointment of committees to report at subsequent meetings on definite subjects.

"Such are a few of the suggestions which occur to me, and are offered because of their importance. I had intended, at first, to have made a survey of the general field of neurology and to have indicated with some fulness and particularity the direction and tendency of research, and to have mentioned many of the yet open questions which appear to be within the field of neurological medicine; but it has seemed to me the suggestions which I have made would be of more importance to the Association.

"I will conclude, therefore, gentlemen, in the expression of something more than a hope,—that we may, at this meeting, make a new departure, and though our number is small, that we may remember that the utility and renown of this Society will not depend on its numbers, but on the character of its labors."

Next followed the exhibition of an interesting case, by Dr. William A. Hammond, of New York.

The patient, a boy of 18, the Doctor said, might be considered as a case of total moral depravity. He would lie and steal to any extent, without any reason: would steal clothes and other articles, sell them for a trifle, and then give the money away. The boy had been placed in several houses of correction, but they could do nothing with him. In reply to the question, "What makes you do these things?" he said, "I can't help it." He did not seem to be lacking in intelligence. His mother had for a long time noticed blood upon his pillow. Dr. Hammond considered the case one of epilepsy. Weight of child at birth, one pound. His father is an exceedingly neurotic individual.

LEAD POISONING IN FROGS.

Dr. J. J. Mason, of New York, read a paper on this subject, which suggested a new field for experiment.

Notwithstanding the important services which experiments upon this animal have rendered in discovering the mode of action of other toxic substances, not even an allusion to the action of lead upon the system of the frog, can be found in toxicological literature.

The subject was divided into two portions:

1. Acute poisoning; 2. Chronic poisoning.

In the former, the poison (acetate of lead) was introduced under the skin; in the latter, by placing the animals in a solution of the same salt.

The acute form of poisoning is characterized by paralysis of the heart with preserved integrity of the motor nerves and muscles; while, in the chronic form, paralysis of the muscles of volition, with their nerves, invariably results, leaving the heart intact.

The muscles always show Erb's *entartungs* reaction to electricity, a characteristic feature of lead palsy in man. A ready method is here found of inducing this condition of the muscles at will, and its value in the study of the pathogeny of lead paralysis is suggested to the consideration of the Association.

In view of the little we know on this subject and of the difficulty of obtaining autopsies in man and failures to induce the same condition in warm-blooded animals, may not much be added to our knowledge by further research on lead poisoning in the frog?

The paper being open for discussion,

Dr. Hammond, of New York, inquired if there was any evidence of lead being in the nervous system.

Dr. Mason could not say, as he had made no examination.

Dr. Jewell.—You found no change in the cord and applied no chemical tests?

Dr. Mason.—No, sir, but I wish to do so.

Dr. Jewell remarked that formerly he had considered the trouble in lead poisoning to be central, and even now was inclined to that view, though he had the record of several cases which had raised a doubt in his own mind as to the truth of this.

Dr. Seguin stated that he once had the opportunity of making an observation bearing on this point. The patient was recovering from lead paralysis at the time he was carried off by a diarrhœa. Examination of the muscles showed the usual degenerative change. Sections through the cervical enlargement showed slight granular change in the ganglionic cells of the anterior horns. At that time (1875) Dr. Seguin took strong ground in favor of a central affection, and is still disposed to this view, though not as strongly as before.

Dr. T. B. M. Cross, of New York, did not favor local absorption, but considered the affected region central and high up.

There was some further discussion in regard to the different modes of communicating lead poison and of the occurrence of lead paralysis in printers. Several of the members of the Association expressed a hope that Dr. Mason would continue experimenting in the direction he had begun.

The President. Dr. J. S. Jewell, then made a verbal report to the Association on the progress he had made in the examination into the

STRUCTURE AND FUNCTIONS OF THE GANGLIA ON THE POSTERIOR ROOTS OF THE SPINAL, AND ALSO OF THE CORRESPONDING PART OF THE CRANIAL NERVES.

Dr. Jewell's remarks were a continuation of a paper upon the same subject, read before the Association at the last annual session.

He stated that his researches were far from being complete, but to him were suggestive. An important question was as to what became of the fibres which appear to rise from the nerve-cells found in the ganglia in question. Do they pass toward the cord or toward the periphery of the body? The Doctor's first opinion was the same as that held by many others since the time of the early observations of Kölliker—that they pass toward the periphery—but he has since abandoned that opinion. His opinion now is, that they do not pass either way, but that they join the axis-cylinders of the fibres of the sensory root, at the so-called "constriction of Ranvier," as these fibres pass through the ganglion. This view he was first led to entertain by seeing preparations of these ganglia made by Dr. Amidon, of New York, and after reading the account of these bodies, given by M. Ranvier, who describes what he calls the "*terminaison en T.*" This mode of termination of nerve-fibres in other nerve-fibres, Dr. Jewell has since ascertained, had been described by R. Wagner, of Gœttingen.

Dr. Jewell has abandoned his opinion that the nerve-cells of the ganglia give off two processes, which connect with either two nerve-fibres, or one other cell and a fibre, or with two cells. He now believes that they are never connected but with one fibre, and that fibre connects, as already described, with the axis-cylinder of a sensory nerve-fibre, as it passes through the ganglion. But for what purpose does this connection exist? This question, Dr. Jewell thinks, is fully answered by making sections, in the living animal, of the posterior or sensory root, at one time between the cord and ganglion, and at another on the peripheral side of the ganglion. In either case Wallerian degeneration sets in, but in a curious manner. In the case of section on the central side of the ganglia, the degeneration is toward the cord, not toward the ganglion, while in the case of the section on the peripheral side of the ganglion, the degeneration of the nerve-fibres takes place toward the periphery, and not toward the ganglia. These observations show conclusively that the ganglia exert a conservative influence over the fibres of the sensory nerves throughout their whole length, from the periphery to their implantation in the spinal cord. Here, then, we have a highly probable determination as to the function of the nerve-cells in the ganglia on the superior roots of the spinal nerves. They exert an influence on the nutrition of the fibres of the sensory root. Their function is trophic. They are part of a *trophic nervous system.*

Another question arose as to whether these same ganglionic bodies do not exert an influence on the non-nervous tissues of the body, through the sensory nerves with which the spinal ganglia, on the one hand, and the ultimate anatomical elements of the tissues, on the other, stand in such intimate relations. Dr. Jewell announced that it was his conviction that such is the case. The nutrition of most parts of the body is, to a certain extent, and in a certain manner, under the control of the mechanisms found in the ganglia. Dr. Jewell did not want it understood that it was his opinion that the nutrition of the body *depends* on either the spinal ganglia or any other part of the nervous system, but that it is to a certain extent under its control. Disease of the ganglia, and also of the spinal cord, may lead to such changes in nutrition as to lead to the so-called idiopathic inflammations we so often witness in the skin and other parts of the body, and indeed any cases involving nutritive change, side by side with changes in blood-supply, which cannot be fairly connected with a local injury, mechanical, chemical, or otherwise. As regards the vascular changes which follow in the wake of irritative tissue-change of presumed neurotic origin, they are to be explained on quite different grounds, since they occur through the agency of a different class of nervous mechanisms. It was Dr. Jewell's opinion that the spinal cord contains in connection with the medulla, and possibly the brain, a central mechanism, which may be properly called trophic, and that the spinal ganglia probably bear the same relation to it that the ganglia on the fundamental chain of the sympathetic, so called, do to the central vaso-motor mechanisms of the cord and medulla. Dr. Jewell stated that it would not be possible for him at present to go at length into the reasons for his beliefs, though he would certainly do so before long. He had simply desired to report progress.

Dr. Jewell having expressed a desire to have the subject of his paper discussed,

Dr. Hamilton asked for an explanation of the way in which atrophy occurred, as, for instance, in progressive facial atrophy.

Dr. Jewell replied, using the blackboard to illustrate his remarks, that from a certain nerve-cell, in which we suppose a nerve-fibre to terminate, there are given off two or three filaments: one of these passes to another group of cells, a second to another group of cells, and so on. One of these groups has a trophic function, another group has a sensory function, and another group has some other function. Now,

it is possible to have this trophic group the seat of disease, which shall be exerted through its cells all along the fibre, while its sensory function remains intact. His belief was that the sensory nerve-fibre conducts all kinds of sensibility. Only in the above way could he explain local inflammation or local atrophy.

The paper was further discussed by Drs. Seguin, Hammond, Cross, Miles, and Mason.

FIRST DAY.—EVENING SESSION.

The Association was called to order by President JEWELL, at 8 P.M.

The first paper was by DR. H. D. SCHMIDT, of New Orleans, who was unable to meet the Association in person during the present session. The paper was read by the Secretary, Dr. Seguin. The communication was accompanied by a number of thin microscopic sections, of different ganglia of the sympathetic nervous system, and also some sketches of ganglionic bodies.

The object of Dr. Schmidt's communication was not only to offer an opportunity to those persons willing to devote the necessary time to the examination of the specimens, of convincing themselves of the truth of his former statements, but moreover to direct the particular attention of the Association to the structure of these bodies, each of which seems to represent a complete nervous apparatus in itself, and, also, to the importance attached to a true knowledge of the particular mode in which the sympathetic nervous system operates. As the investigation of the structure of these bodies is one of the most difficult in histology, the Doctor considered it necessary that the investigator, in order to recognize this structure, should be able to represent in his mind the exact form in which sections of a complicated body of a certain form, made in different directions, would appear to the eye. Dr. Schmidt called attention to the fact that in examining the ganglionic bodies, lodged between the double contour nerve-fibres of the *plexus gangliformis* of the pneumogastric nerve, the meshes of the network forming the capsule would be found much coarser, a fact which rendered these bodies very suitable for research. Attention was called to the fact that from each sympathetic ganglionic body, two different kinds of processes arise; the larger of these, having the appearance of true axis-cylinders, are most probably transformed into double contour nerve-fibres, while the finer and shorter ones contribute to the formation of the nervous network of the capsule, from which the fine fibrillæ, forming eventually the sympathetic nerve-fibres, arise. Thus we have two different kinds of nerve-fibres arising from one and the same ganglionic body. Now the question arises, does this arrangement bear any relation to the rhythmical or peristaltic action of the involuntary muscles? And further, is one kind of nerve-fibre motor while the other is inhibitory? If so, which are the sensory fibres? Another question to be answered is, whether those sympathetic ganglionic bodies, with the nerve-fibre arising from them, lodged in the plexus gangliformis of the pneumogastric nerve, bear any relation to the inhibitory action of this nerve? Dr. Schmidt's view is that difference in structure conditions a difference in function.

The paper was discussed by Drs. Jewell, Seguin, Mason, and Miles; after which

DR. MASON gave an informal demonstration of the structure of the spinal cord of the American bull-frog, and the medulla oblongata and spinal cord of the alligator, by means of fresh and permanent microscopic specimens. Several microscopes were provided for the purpose.

DR. SEGUIN showed a number of transverse sections of the spinal cord of the green sea-turtle, exhibiting remarkably long cell-processes proceeding from the anterior horns into the white columns. There were also shown three photographs of the same specimens, made by Dr. J. W. S. Arnold.

At 9:20 P.M. the Association adjourned to attend a reception at the residence of Dr. William A. Hammond, to which he had invited the Association and a number of the profession in New York.

THURSDAY, JUNE 7TH.—AFTERNOON MEETING.

The Association was called to order at two o'clock by President JEWELL.

The Secretary read the report from the Council recommending the following gentlemen for election as active members. Dr. V. P. Gibney, and Dr. E. C. Spitzka, both of New York. These gentlemen were unanimously elected.

The first paper was read by Dr. N. B. Emerson, of New York, and entitled

SYPHILITIC SCIATICA.

DR. EMERSON called attention to the fact that syphilis is very infrequently recognized as a cause of sciatica. Out of the reports of sixty-three medical men, in answer to Lauder Brunton's questions in regard to sciatica, only twelve spoke of the syphilitic form.

There was sufficient clinical and post-mortem evidence for making the statement that syphilitic neoplasmata are capable of producing violent pains and loss of motor function in the sciatic nerve by pressure. Cases were given to substantiate this point. The Doctor considered it established that the syphilitic diathesis is capable of producing neuralgia in the sciatic nerve in some occult manner, without lesion. His reasons are, in brief, as follows:

1. Cachexia is acknowledged to be a frequent cause of neuralgia.
2. Syphilis is a notable cause of cachexia.
3. Syphilitic cachexia and neuralgia are frequently found to coexist, and with relief of cachexia comes relief of neuralgia.

For a diagnosis of syphilitic sciatica, the patient must have been free from sciatica previous to the syphilitic attack: an attack in the late stage of syphilis is more significant than in the early. The prognosis of syphilitic sciatica is the same as that of the syphilis which causes it. The treatment is practically that of syphilis; opiates may be necessary for the relief of pain; ferruginous tonic remedies should be made use of for the relief of the cachexia.

The next paper was read by DR. EUGENE DUPUY, of New York, on

HEREDITARY EPILEPSY.

It is well known that Dr. Brown-Séquard has discovered that certain lesions of the spinal cord, or the brain, or the sciatic nerve, in Guinea-pigs, will give rise to an epileptic malady in these animals. In from three to six weeks after the operation, it is found that an alteration in the nutrition takes place in an area of skin, which is limited by a line starting from the outer canthus of the eye, and running to the median line on the upper lip enclosing the nostril, thence backward, enclosing the lower jaw to the anterior portion of the shoulder to the median dorsal line, to the base of the ear and inner canthus of the eye. The alteration in nutrition takes place on the side corresponding to the injury. It consists in this, that the faculty of feeling pain, heat and cold, disappear by degrees, while tactile sensation appears to be exalted. In a few days it is found that tickling this zone of skin will give

rise to twitchings which are limited to the muscles of the eye and the eyelids on the same side. Later, the muscles of the mouth and of the face participate; still later the contractions become more general, until this whole side becomes the seat of convulsions; then the convulsions attack the other side also.

When things have come to this point the convulsions precede, by a very short time, a complete loss of consciousness. If the subject of experiment be a white Guinea-pig, it is found that there is paleness of the face, but in all cases there is a little foam at the mouth and dilatation of the pupils. In some cases the animal utters a cry, probably corresponding to the epileptic cry in the human species. Not only are the convulsions identical with those in epileptic man, but there is also loss of consciousness, a state of torpor, stupidity, and even in some cases something like insanity.

It happens that such animals recover spontaneously, and in so doing, all of the phenomena described above occur in a reverse order, and the zone of skin regains its lost functions. When the epilepsy is due to the destruction of the sciatic nerve, the foot of that side loses the two outer toes, so that the animal has only one toe, the inner. When young are born to such a parent or parents (for it matters not whether one or both of the parents have been operated upon) they have this peculiarity of having only one toe on the posterior foot. Sometimes, however, they have additional toes, which in this case are attached by a pedicle to the limb.

Now all of those peculiarities which have been observed in the parents, all things in all their details, are witnessed also in the Guinea-pigs, hereditarily born toeless, who have developed epileptic phenomena. There is, therefore, an inheritance of a power to develop the disease, but no inheritance of the disease itself. Dr. Dupuy has examined the sciatic nerve of such animals and found them healthy, before, during, and after the existence of the disease. He has also followed these experiments through five generations.

Dr. Dupuy made allusion to the doctrine of Balbiani on embryogeny, and thought that, according to Balbiani's laws, the phenomena of inheritance, in the case of epilepsy, could be explained, epilepsy being a malady of nutrition like all other nervous diseases. Dr. Dupuy stated that only those young which are born with alteration in the normal nutrition of parts become epileptic; in such the disease fatally occurs.

The paper being open for discussion,

Dr. Jewell inquired whether the animals operated upon invariably transmitted their deformities.

Dr. Dupuy.—No, not invariably, but it is so sometimes.

Dr. Hammond remarked that he had been astonished at the small proportion of transmitted cases of epilepsy in the human species.

Dr. Loring inquired if, in following out five generations, those two toes were absent, or whether the tendency was towards the normal. He made allusion to the non-transmission of the deformity of the feet, in the case of the Chinese women, and to the inheritance of diseases of the eye.

Dr. Dupuy stated that the tendency was, of course, towards the normal number of toes, since so small a number of the young have the deformity; that it appears, to have a lesion transmitted, it must cause an alteration in nutrition. He made reference to a paper which he had published, in which he had shown that the phenomena following a lesion of the sympathetic nerve, or corpora restiformia, in the Guinea-pig, are invariably inherited by their young, and it is known that these lesions modify the organs of sight. In regard to the Chinese, he did not think there was much reliable information.

Dr. Seguin remarked that the power to resist these hereditary influences was greater in the human subject than in the lower animals.

Dr. Jewell said that there was no deformity transmitted except where some of the parts have been removed; that a distinction should be made between those changes which are morphological and those which are structural.

Dr. Spitzka stated that he had read in Obersteiner's Essay, that those animals which are most likely to become epileptic are those which resemble their parents in color of hair; that the experiments of Westphal led to the view that epilepsy depended upon hemorrhage in the medulla oblongata. Dr. Spitzka said he did not admit that the cell of Balbiani was considered as more important than the cell of Purkinje.

Dr. Dupuy remarked that all biologists accepted the views of Balbiani, and moreover that it is taught that Balbiani's cell and Purkinje's cell are two different things. The first carries ancestral, and the second maternal tendencies.

The paper was still further discussed by the above gentlemen and Dr. Mason.

LOCOMOTOR ATAXIA.

Dr. J. C. Shaw, of Brooklyn, exhibited a very interesting case of locomotor ataxia in a female child four years of age. When eighteen months old she had measles and scarlatina, and in a few months afterward she began to experience difficulty in walking, followed by an inability to hold things in her hands. This difficulty increased until she was unable to walk. She now presents marked ataxic movements in both of the upper and lower extremities. When the child was supported, and she attempted to walk, both of the lower extremities were jerked forward and outward and the heel brought down first, in a truly ataxic manner. There did not appear to be any anæsthesia. It had been observed that at times the child would scream out without apparent cause. On May 2, 1877, she screamed out suddenly and said that she had a pain in her left heel. She has no muscular atrophy or paralysis, and the muscles react normally to Faradization.

Dr. Shaw stated that the diagnosis was made by exclusion, and gave his reasons for excluding, brain tumor, lesion of the ganglionic cells of the anterior horns, paralysis from peripheral irritation, and pseudo-hypertrophic paralysis; and advanced an argument to show that it was a case of sclerosis of the spinal cord—disseminated, perhaps, and located in the lumbar part of the cord, and in the posterior columns.

The paper was discussed by Drs. Seguin, Hammond, Shaw, and Loring.

The next was a paper read by Dr. William A. Hammond, of New York, which was, as Dr. Jewell afterwards remarked, interesting from a scientific as well as a theological point of view. The title of the paper was,

THE ODOR OF THE HUMAN BODY AS DEVELOPED BY CERTAIN AFFECTIONS OF THE NERVOUS SYSTEM.

Dr. Hammond called attention to some facts in regard to the natural odor of the body in the human species, and of the faculty which some of the lower animals possessed,—that of differentiating between the odors of different individuals. Besides the inherent odor of the body, there was reason for believing that an entirely different one may be given off, not only as a consequence of disease, but as a result of emo-

tional disturbance. During the middle ages, manifestations of the kind in question were not uncommon in the persons of both sexes, and were attributed to miraculous power. That such cases existed was probable, not, however, as a special gift of God, but as a neurosis similar to other instances which had come under the Doctor's own observation. Cases were then cited, of a number of the more important instances among the saints, who were considered highly odoriferous. So far as the author of the paper was aware, there had been no attention given to the subject in the relations now under notice. The cases cited by Dr. Hammond as bearing upon this point were briefly as follows:

A young married lady of strong hysterical tendencies, from whom, during a paroxysm, an agreeable odor, similar to that of violets, was exhaled only from the left lateral half of the anterior wall of the chest. At such times the perspiration was remarkably increased in this region, as compared with the corresponding part opposite. The odor was perceptible at a distance of several feet, but was entirely absent during the intervals of the paroxysms. From an examination of an alcoholic extract of the odoriferous perspiration exhaled by this patient, it was presumed that the odor was due to the presence of butyric ether. The local application of several remedies to the parts, among which were preparations of carbolic acid, soap and water and other alkaline substances, gave the patient only temporary relief from the odor; but the internal administration of the salicylate of soda, in doses of five grains, entirely cured this lady of her violaceous odor, and the perspiration of the region was reduced to the normal character.

A second case was that of a young lady in whom the first exhibition of the odor (in this case that of pine-apple) occurred contemporaneously with an attack of chorea.

In a third case a pine-apple odor was emitted from the skin of the head, neck, and chest of a woman whenever she was angry.

A fourth case was that of a man who, during frequent hypochondriacal periods, emitted a violaceous odor. Occasionally cases were met with from whom a disagreeable odor was exhaled during sexual excitement. No opinion as to the actual and immediate cause of these odorous emanations was expressed, further than that they were due to a nervous disturbance.

Dr. Hammond passed around a small vial containing an alcoholic extract of the odoriferous perspiration of his first patient, which had a distinct violet smell; also a second vial of the same extract, with the addition of bicarbonate of soda, smelling strongly of pine-apple.

The paper was discussed by Drs. Jewell, Beard, Hammond, Seguin, Hamilton, and Spitzka, cases of a similar nature to those mentioned in Dr. Hammond's paper being cited.

After the close of the discussion Dr. George M. Beard, of New York, proceeded to read a paper on

THE ENDEMIC TETANUS OF EASTERN LONG ISLAND.

That tetanus had been more frequent in portions of Suffolk County, Long Island, than in other parts of the country was well known. Dr. Beard had passed several of his summers there, had conversed with a number of the physicians and residents, and corresponded with nearly all of the physicians of the county, asking for facts and not opinions.

Dr. Beard's conclusions up to statement are as follows:

1. For the last three-quarters of a century there has been an endemic tetanus in certain portions of Suffolk County. It consists of both the traumatic and spontaneous varieties, and affects animals as well as man.

2. This endemic abounds mostly in the towns of the south side, especially at the Hamptons, is less common in the central towns and on the north side, and in Montauk does not exist.

3. The endemic has been on the decline for the past ten or fifteen years, and in the central portion (excepting Riverhead) no longer exists.

For the causation there are three conceivable theories,—geology, the use of fish on the land as manure, and dampness in the air.

The theory based upon geology and advocated by Dr. B. D. Carpenter, who has studied the subject, appears to be disproved by the decline in recent years. Geology is a constant factor. In favor of the fish-on-the-land theory is the occurrence of the disease in those localities where fish are most used and the decline of the disease with the decline in the use of fresh fish as manure. Dr. Beard thinks, however, that the facts up to date seem to favor the theory of dampness in the air combined with the local dampness of the soil.

Dr. Beard would treat a case of tetanus by calabar bean (English preparation), in small doses every hour or half-hour, so as to affect the pupil, and at the same time apply ice-bags to the spine. As suggested by Dr. Carpenter, the patient should be kept absolutely quiet, if possible. The local application of the oil of turpentine to all wounds is practised by a number of the physicians of Suffolk County, and is to be recommended. The apprehension felt by New York surgeons that tetanus is likely to follow surgical operations in Suffolk County is not justified by the facts as they now stand.

SECOND DAY.—EVENING MEETING.

The Association was called to order by the President at 8 P.M.

The first paper of the evening was read by Dr. A. D. Rockwell, which consisted of the history of a remarkable case of

INTERMITTENT HEMIPLEGIA.

A brief outline of the case is as follows: A stair-builder, aged forty-nine, in fair health, was seized one afternoon in July with dizziness, loss of speech, and complete paralysis of the left side, which lasted for twenty minutes, and then entirely disappeared. Similar attacks occurred every other day for three weeks thereafter, at about the same time of the day. One day, about the middle of August, he had a much severer attack at 11 A.M., which was repeated every day at the same hour until Sept. 3d, and between 11 A.M. and 4 P.M. each day; during all this time paroxysms recurred three or four times. In the more severe attacks he was unable to walk or speak, but during the milder ones he could move with difficulty and speak indistinctly. Dr. Rockwell's treatment consisted of a mild *séance* of general Faradization, in conjunction with three two-grain doses of quinine daily. There was decided improvement at once, and on the 25th of September he was discharged as apparently cured. He remained so until December 4th, at which time the paroxysms re-occurred and in a more violent form, and he died on the following day.

Post-mortem examination showed congestion of the surface of the brain; pia mater covered with a thin film of organized lymph from old inflammations; texture of the brain softer than normal; choroid plexus enlarged and cystic; basilar artery and part of the cir-

cle of Willis enlarged and atheromatous; mitral valves and liver in a condition of fatty degeneration; serous effusion at the base of the brain, but there were no arteries ruptured, no evidences of embolism or thrombosis.

As the above described pathological changes seemed hardly sufficient to account for the unusual symptoms and suddenness of death, Dr. Rockwell discussed at some length the probable cause of the final result, and, by means of exclusion, thought it probable that death was due to a spasm of the vessels in the brain tissue, which rendered it unfit to discharge its proper function.

In the course of the rather lengthy discussion which followed the reading of the above paper, Dr. Hammond cited a case in his own practice which he considered analogous with Dr. Rockwell's case.

Cases were also cited by Drs. Beard, Kinnicutt, and Jewell, and the subject further discussed by Drs. Emerson, Rockwell, Shaw, Spitzka, and Dupuy.

The next paper was read by Dr. V. B. Gibney, of New York, and entitled

SPINAL IRRITATION IN CHILDREN.

The paper consisted of the clinical histories, together with remarks upon a number of cases which Dr. Gibney was wont to consider as cases of spinal irritation.

In the course of the lengthy and animated discussion which followed it was made evident that there was some difference of opinion as to what spinal irritation really was, several of the members of the Association having expressed their disagreement with Dr. Gibney on this point. The question of local malnutrition was raised and freely discussed.

At the close of the discussion Dr. E. C. Seguin read a paper entitled

A CLINICAL CONTRIBUTION TO THE STUDY OF POST-HEMIPLEGIC CHOREA.

He related the history of two cases. In the first, observed in 1877, a young man of eighteen years suddenly became paralyzed in the left arm, without disorder of sensation. Later, some numbness appeared in the left hand, and in about two months convulsive movements manifested themselves in the left upper extremity. About this time the left leg became affected with weakness and tremor; later still, the lower part of the left side of face twitched. The arm and leg were the seat of convulsive movements of choreiform type, made worse by emotion or attempt to use parts; no ataxia; sensibility slightly lessened in hand. Later there occurred palsy of third cerebral nerve on the right side; palsy and spasm in left face. Patient died, but autopsy could not be obtained.

Case second was presented to the Association. Its history was briefly this: Male, aged twenty-six years; in April, 1876, sudden right hemiplegia, with partial loss of consciousness and temporary aphasia. During second and third months convulsive movements appeared in the right arm and hand, while great recovery of muscular power was obtained. Partial right temporal hemiopia. Numbness and slight anæsthesia in face, arm, and leg on right side. A few epileptiform attacks since. Seven years ago had chancres, followed by doubtful secondary symptoms. Movements on right side are now nearly normal in force; while at perfect rest slight oscillations (of paralysis agitans type) occur in fingers and hand. During attempt to use hand violent inco-ordinate movements occur, irregular extension and flexion, of quasi-choreic, quasi-ataxiform type. Partial right hemiopia and hemianæsthesia.

In both these cases the movements, first described by Dr. S. Weir Mitchell, are present; and from the other symptoms present it would appear as if the lesion in these cases had been in the basal part of the hemisphere, just below and posterior to the thalamus opticus, involving, to a certain extent, the internal capsule. In the first case the lesion extended downward so as to involve the crus or the origin of the third nerve.

Wednesday, June 8th.—Afternoon Meeting.

The Association was called to order at 2 P.M.

The Committee on Nominations presented the following report, through Dr. Miles, its chairman:

For President—Dr. J. S. Jewell, of Chicago.

For Vice-Presidents—Dr. F. T. Miles, of Baltimore, and Dr. S. W. Webber, of Boston.

For Corresponding Secretary—Dr. J. J. Mason, of New York.

For Recording Secretary and Treasurer—Dr. E. C. Seguin, of New York.

For Curator—Dr. T. A. McBride, of New York.

On motion, the report of the committee was accepted, and the gentlemen named duly elected officers of the Association for the ensuing year.

Under the head of Miscellaneous Business the President read a letter from Dr. William A. Hammond, offering to the American Neurological Association a prize of two hundred and fifty dollars to be awarded at its next annual session on the favorable report of a committee of three of its members, to the author of the best essay on the anatomical and physiological effects of strychnia on the brain, spinal cord, and the nerves.

COMMITTEE ON PRIZE ESSAY.

Dr. S. Weir Mitchell, of Philadelphia; Dr. J. S. Jewell, of Chicago; and D. E. C. Seguin, of New York.

The reading of papers being next in order, Dr. J. C. Shaw read a short paper entitled,

A CONTRIBUTION TO THE SYMPTOMATOLOGY OF BRAIN TUMOR.

Given in brief the two cases cited were as follows:

A lady, aged fifty; "choked disk," both eyes; dizziness, headache, attack of falling, without convulsions general or local; no paralysis. Post-mortem examination revealed a sarcomatous tumor in the right temporal fossa, pressing upon the inferior and middle frontal convolutions.

W. P., aged twenty-nine; male; "choked disk;" attacks of falling without loss of consciousness; no paralysis, choked disk lasting three and a half years without passing to atrophy; vision $\frac{20}{40}$. Post-mortem —Pedunculated cystic tumor pressing on the anterior surface of the left temporo-sphenoidal lobe. This man was one of the victims of the fire in the Brooklyn Theatre.

The paper was discussed by Drs. Loring, Seguin, Miles, and Dupuy.

VASO-MOTOR CENTRES.

Dr. Eugene Dupuy made a communication to the Association on the above subject, which was to the effect that vaso-motor centres are not to be looked for in the spinal cord or brain, but outside of them. The vaso-motor centres are made up of the ganglionic system and of exceedingly numerous ganglionic cells, that are to be found scattered in the pia mater in the neighborhood of the medulla oblongata and the pons; also in the pia mater of the anterior parietal portion of the brain; also from ganglia that are found on the

track of the ganglia of the trigemini, and the ganglia of the spinal and cerebral nerves; also from the ganglia that are scattered through the cranial and other viscera.

That vaso-motor fibres only become connected with the cerebro-spinal system at their apparent origin, that is to say, at that point where the nerves get their sheath of pia mater after leaving their centres.

A warm and lengthy discussion followed the reading of this paper, in which Drs. Jewell, Seguin, and Dupuy were the chief participants.

LOCALIZED LESIONS OF THE BRAIN.

Dr. E. C. Seguin read a report of seven cases in which more or less limited lesions of the cerebral cortex had been connected in life with definite symptoms.

The cases were grouped in three categories.

First.—Cases in which a limited lesion produced aphasia with or without hemiplegia. In Case I. ramollissement of the convolutions, in front of and just behind the fissure of Rolando on the left side, produced right hemiplegia and complete aphasia. Much recovery of motion occurred; aphasia remained complete. Careful examination of brain showed that the posterior part of the third frontal convolution and the folds of the island of Reil were involved in the lesion. In Case II. embolism of the first part of the left middle cerebral artery produced right hemiplegia with complete aphasia. There was ramollissement of the superficial part of the left third frontal convolutions and of the first two folds of the island of Reil and their subjacent white matter. In Case III. chronic aphasia of varying degrees, epileptic attacks, and partial temporary right hemiplegia were found to have been caused by a chronic pachymeningitis adherent to the altered left third frontal convolution near the fissure of Sylvius. Death in status epilepticus, with complete right hemiplegia, caused by extensive central softening of left hemisphere; very recent compared with meningitis. In Case IV. a secondary (by infection) tubercular meningitis, with its focus about the left middle cerebral artery and over the third frontal convolution and the folds of the island of Reil, produced intermittent aphasia (occurring almost every forty-eight hours), and at the close of life, in twelve days, there were complete aphasia and right hemiplegia.

Second.—Cases in which a limited lesion produced paralysis. Case V.: Small patch of softening in the middle of the left ascending frontal convolution, reaching inward to roof of ventricles, produced a right hemiplegia without aphasia, and probably without facial palsy. When examined, had palsy of right arm, none of face or tongue, and was paraplegic (from spinal lesion found in cervical region).

Third.—Cases in which a limited lesion gave rise to limited convolutions. Case VI.: A young man, injured on top of head, developed common epilepsy, replaced by local epileptiform spasms in left face, neck, hand, and arm; paresis of these parts. Later left hemiplegia and return of general spasms. Autopsy showed injured skull, thickened bone, adherent thickened bony dura over upper (inner) end of left ascending and first frontal convolutions, a sarcomatous tumor, starting from adherent dura and penetrating into nearly whole of upper half of right hemisphere. Case VII.: Septicæmia, suppurative meningitis, and two abscesses in cortex of brain. One as large as large almond in lower part of left second frontal convolution, not involving more than anterior margin of the third, gave rise to no symptoms. The second, about the size of a pea, situated in the white matter just under the cortex of the middle part of the right second parietal convolution, was in all probability the cause of very singular epileptiform (no loss of consciousness) spasm, which occurred early in the disease, in the left hand, arm, and face.

These cases seem to favor recent views on the localization of function in the cerebral cortex. The first group emphatically support Broca's hypothesis of a speech centre in the left third frontal convolution, and the anterior folds of the island of Reil. The cases of the third category also give support to Hitzig and Ferrier's views. The author is not prepared to accept so fine a localization as proposed by these gentlemen, but it seems to him that we are now in a position to speak of excitable and non-excitable regions in the cortex (pathologically speaking).

The discussion of this paper continued till time for adjournment, and yet the participants were not willing to quit a subject so fruitful of argumentative debate, so it was voted to resume the conflict at the evening meeting.

THIRD DAY.—EVENING MEETING.

The Association was called to order at 8 P.M. by President Jewell.

On motion of Dr. G. M. Beard, it was resolved to hold the next annual session of the Association in the city of New York.

On motion of Dr. T. M. B. Cross, of New York, the Recording Secretary was directed to preserve fifty copies of the first volume of the Association's Transactions.

On motion of Dr. E. C. Spitzka, a vote of thanks was tendered to Mr. Josiah Roberts, of the New York Medical Record, for his attendance and note-taking during the entire session, thus securing a full report of the proceedings of the Association in a "widely circulating medical journal."

Before the discussion of Dr. E. C. Seguin's paper was resumed, Dr. Eugene Dupuy made a few remarks upon

HEREDITARY TRANSMISSION OF PECULIARITIES.

It was a report of a curious case of heredity. Dr. Dupuy stated that he owed to his friend, Dr. Gibney, the opportunity of observing a family consisting of father and mother, five children, and one grandchild. The father and mother are semi-ambidextrous. All of the children and the grandchild are ambidextrous to an annoying degree: all of the movements which they perform with one hand are simultaneously performed by the other hand. The girls are obliged to use only one hand when dressing themselves, or when cutting patterns, and hold the other hand down by their side, because the two hands perform the same movements at the same time, and would interfere with each other.

Attention was called to the fact that the father of the grandchild is not semi-ambidextrous. Dr. Dupuy has made experiments upon these persons, and has found that, if the skin of the forearm on one side be kept well dry, and a rapidly interrupted electrical current be used, so as only to call forth reflex actions, it is possible to induce synchronous movements in the fingers of both hands, and also muscular contraction in the lumbricales muscles of the fingers, which are too rapid to be carried on by the will. Dr. Dupuy considered these facts of great interest when coupled with the facts which he reported yesterday about hereditary epilepsy.

Dr. Spitzka called for Dr. Seguin's views in regard to the subject of his last paper—Localization of Brain

Lesions—which was given, and an animated discussion followed.

MENTAL THERAPEUTICS IN ORGANIC DISEASE, AS ILLUSTRATED DURING THE BLUE-GLASS DELUSION.

This was the title of a paper read by Dr. Geo. M. Beard, and was a continuation of one which he read last year before the Association, on "The Influence of Mind in the Causation and Cure of Disease."

Dr. Beard cited two cases of organic disease of the spine which had received decided temporary relief while sitting under blue glass.

The opinion was expressed that in time all works on therapeutics must include a chapter on mental therapeutics.

From experiments and study, Dr. Beard was able to make the following psychological suggestions:

1. The ill-success of patients treating themselves, and of physicians treating their own families, was partly due to the want of awe and the emotion of wonder to co-operate with them.

2. The old custom of keeping patients ignorant of the contents of prescriptions, by writing them in Latin, had psychology on its side. Possibly we may be going too far the other way.

3. It is entirely possible that hydrophobia and tetanus may be brought on, with all their distinctive symptoms, and that death may result through the emotions of fear and expectation alone.

4. Patients whose will and intellect are feeble have a bad prognosis, for with them the subjective symptoms are trifling; and *vice versa*.

5. Physicians of great scientific attainment and real worth may fail when an ignorant and obscure charlatan succeeds, because in the latter wonder and awe are excited, and these are more powerful therapeutically than simple respect.

6. In experimenting in hospitals with new medicines, patients must be deceived, or else the results are complicated by mental influence.

Dr. Beard expressed a belief that those who would repeat his experiments would confirm his results and conclusions.

This paper was discussed by Drs. Seguin, Miles, Beard, Cross, Jewell, and Dupuy.

It being very late, Dr. Jewell's paper on *Athetosis* was read by title only.

Dr. Jewell, in appropriate words, thanked the Association for the kind and generous way in which they had treated him.

At 10.30 P.M. the Association adjourned.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 8 to July 14, 1877.

Swift, E., Lieut. Colonel and Asst. Medical Purveyor. Relieved from duty as Medical Director, Dept. of the Gulf, to proceed to New York City, and relieve Colonel C. Sutherland, Surgeon, of the charge of the Medical Purveying Depot in that city. S. O. 147, C. S., A. G. O.

Sternberg, G. M., Major and Surgeon. Telegraphic instructions of 19th inst. to proceed with ample medical supplies, with Companies B and H, 21st Infantry, from Fort Walla Walla to Lewiston, Idaho Ter., confirmed. S. O. 86, Dept. of the Columbia, June 29, 1877.

Brooke, J., Captain and Asst. Surgeon. To accompany 2d Infantry to Dept. of the Columbia and return to his present station, unless otherwise ordered. S. O. 133, Dept. of the South, July 7, 1877.

Kinsman, J. H., Captain and Asst. Surgeon. Assigned to duty as Post Surgeon at Jackson, Miss.; S. O. 114, Dept. of the Gulf, July 4, 1877; and granted leave of absence for one month, with permission to apply for one month's extension. S. O. 116, C. S., Gulf.

De Hanne, J. V., Captain and Asst. Surgeon. To accompany troops to Fort Clark, Texas, and report to the Comdg. Officer, District of the Nueces, for assignment. S. O. 125, Dept. of Texas, July 7, 1877.

Elbrey, F. W., Captain and Asst. Surgeon. To accompany 2d Infantry to Idaho Ter., and return to his present station, unless otherwise ordered. S. O. 133, C. S., Dept. of the South.

Adair, G. W., 1st. Lieut. and Asst. Surgeon. To report to Comdg. Officer, District of the Rio Grande, Fort Brown, Texas, for duty. S. O. 125, C. S., Dept. of Texas.

Semig, B. G., 1st Lieut. and Asst. Surgeon. Assigned to temporary duty at Camp McDermot, Nev. S. O. 76, Div. of the Pacific and Dept. of California, June 29, 1877.

Reed, W., 1st. Lieut. and Asst. Surgeon. Assigned to duty at Camp Apache, A. T. S. O. 66, Dept. of Arizona, June 26, 1877.

Hall, W. R., 1st Lieut. and Asst. Surgeon. Telegraphic instructions of 20th inst. to accompany troops on board steamer "California" to Lewiston, Idaho Ter., for field service, confirmed. S. O. 86, C. S., Dept. of the Columbia.

Torney, G. H., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Gibson, Indian Ter. S. O. 125, Dept. of the Missouri, July 5, 1877.

Gardiner, J. B. W., 1st Lieut. and Asst. Surgeon. Assigned to duty at Camp Lowell, A. T. S. O. 66, C. S., Dept. of Arizona.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending July 14, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
July 7.....	0	4	70	2	31	42	5
" 14	1	2	68	1	36	38	1

Bloomingdale Asylum, N. Y.—Dr. C. H. Nichols, who for twenty-five years has been Medical Superintendent of the Government Hospital for the Insane at Washington, D. C., has received a similar appointment for the Bloomingdale Asylum in this city, *vice* Dr. D. Tilden Brown, resigned in consequence of ill-health.

Dr. Nathan R. Smith, of Baltimore, Md., died July 3d, in the eighty-first year of his age. He was born in Cornish, N. H. In 1825 he was appointed Professor of Surgery and Anatomy in the University of Vermont, and in 1827 he accepted the Chair of Surgery in the University of Maryland, which he filled for many years. Although an excellent surgeon and successful teacher, he was known principally in connection with his anterior splint for the treatment of fractures of the thigh.

Original Communications.

THE VALUE OF SMALL AND FREQUENTLY REPEATED DOSES.

By S. HENRY DESSAU, M.D.,

ONE OF THE DISTRICT PHYSICIANS TO THE N. Y. DISPENSARY, AND ONE OF THE PHYSICIANS TO THE OUT-DOOR DEPARTMENT OF THE N. Y. FOUNDLING ASYLUM.

(Read before the N. Y. Medical Journal Association, June 15, 1877.)

MR. PRESIDENT AND GENTLEMEN:—In response to the kind invitation of your Secretary, I have the honor to present to you the paper of the evening, on the subject of "The Value of Small and Frequently Repeated Doses." In doing so, I regret that my limited experience and lack of necessary facilities will not enable me to furnish you with any very new facts. The object of this paper is more for the purpose of directing your attention and consideration to a feature of the therapeutical art which has only recently received due recognition at the hands of some of our best authorities in this branch of medical study, and to invite your discussion upon its merits.

The scientific spirit that has marked the progress of medical study has encountered more difficulties in the domain of therapeutics than elsewhere, but it has at the same time engendered and cultivated a spirit of liberalism that pre-eminently entitles us to the use of the term eclectic. We winnow valuable facts from the chaff of our own and others' experience, and appropriate them to the advancement of the medical arts and sciences. In therapeutics especially the presentation of a new fact to the profession invites a series of careful, accurate, and thorough investigations and observations, that must tend to develop in the end a pathway that may lead us at some future time to that utopian goal—a scientific therapeutics.

Upon the appearance of that now indispensable little work, *Ringer's Handbook of Therapeutics*, my attention was particularly attracted to the frequency with which he recommends small doses of medicines, that we have been accustomed to use in much larger doses, for entirely different diseases. Some of these remedies were recommended so strongly that I was induced to give them a trial, more especially as my practice among children impels me, for many reasons, to administer as little unpleasant-tasting medicines as possible. Their use with children first having been found satisfactory, my position in connection with the New York Dispensary afforded me the opportunity to further test their value in numerous cases of adults. I submit the results of my experience in the use of these remedies to your consideration.

In the treatment of vomiting in children, whether due to stomach and intestinal disorder, or as a complication of pneumonia, following the recommendation of Ringer, I have found the administration of drop doses of the wine of ipecac, repeated every hour, act with the greatest success in checking the vomiting. It also appears to exert a curative effect upon the diarrhœa of children when attended with vomiting, especially that form where the stools resemble those of dysentery. But the vomiting is the symptom that is most markedly benefited. I recall the case of a little patient at the New York Foundling Asylum, suffering from a severe attack of croupous pneumonia, where the stomach was so irritable for the first two days of the attack that not even a spoonful of toast-water would remain. This condition, of course, prevented the retention of any remedies, but after the first dose of a drop of wine of ipecac given in toast-water, the nurse reported that the vomiting entirely ceased and did not return. The remedy was, however, continued for two days longer. Frequently, where other remedies would not be retained in the vomiting of children suffering from acute gastro-intestinal catarrh, the drop dose of wine of ipecac, given in toast-water or the mother's milk, would remain and quiet the stomach to receive other remedies, and, most important of all, the mother's milk.

I have not had much experience with the use of ipecac in small doses in the treatment of vomiting in adults. I have used it in one case of chronic bronchitis with fibroid degeneration, subject to frequent attacks of vomiting, independent of the vomiting excited by the cough, but with not such good results as followed the small doses of other remedies that I will mention later.

In the vomiting sometimes following a debauch, especially in women, of which I have seen several severe cases, drop doses of Fowler's solution of arsenic, hourly repeated, appeared to act like a charm. This remedy is also highly recommended by Ringer in the morning vomiting of drunkards, where this symptom is indicative of a chronic affection of the gastric mucous membrane. Here the dose is not so frequently repeated, however, a drop of the solution given three times daily, before meals, being sufficiently often. Where there is a disgust for food, in addition to the morning vomiting, in these cases of chronic alcoholism, I have used a combination of a drop of Fowler's solution of arsenic and from three to five drops of tincture of capsicum, given before meals three times daily, with good success.

In the vomiting which often complicates phthisis pulmonalis and its allied affection, chronic bronchitis, independent of that brought on by the cough, it is of the utmost importance to be possessed of a reliable remedy to check it. The power of the stomach to retain its contents is here the only hope of any chance to strengthen and build up the general system, and so enable it to resist the encroachments of the disease-action. Moreover, the frequent attacks of vomiting tend to exhaust and weaken an already feeble organism, and so hasten dissolution. It is almost astonishing to observe with what happy success small doses of alum, say from three to five grains, given in solution with some aromatic water, as cinnamon, for instance, acts here.

When the vomiting in these cases is severe and frequent I have given the alum every second or third hour, but otherwise three times a day is sufficiently often. Rarely does the remedy need to be used beyond twenty-four hours. In a few cases that came under my observation, the vomiting, after having disturbed the patient for several days, has ceased after the second dose of the alum. This is the remedy that was used with such good effect in the case of chronic bronchitis before mentioned. For experimental purposes, hourly drop doses of wine of antimony were also used in this case, more especially as in certain attacks of the vomiting there was also an acute exacerbation of bronchitis, causing much dyspnœa, with wheezing respiration. The attacks of vomiting and dyspnœa appeared to be speedily relieved by this treatment, although it is fair to state that additional treatment, to produce sweating, was used to relieve the dyspnœa and wheezing.

After some children have passed through an attack of pertussis, especially those of a lymphatic temperament, they are apt to be harassed with a troublesome cough for many months, which appears to be a slow

winding up of the original disease, and is often so considered by the mothers. There is a certain amount of laryngeal spasm during the cough, which is liable to induce frequent vomiting. I have seen this condition existing in a severe degree in a child at the New York Foundling Asylum, a year after the original attack, and after the disappearance of the cough for an interval of several months. There is generally no great amount of bronchitis. In such cases I have used small doses of alum, one to three grains given in syrup of wild cherry three times daily, with the result of checking the vomiting speedily and relieving the cough of its spasmodic elements, if not curing it entirely. There is a form of bronchitis seen amongst children, where a large number of coarse mucous râles produce loud wheezing with an asthmatic quality of cough. The wheezing is the symptom that the mother is most likely to complain of, and together with the cough is most intense at night, both almost entirely disappearing during the day. Such cases very readily yield in my practice under the use of tartar emetic, given in solution in the proportion of a grain to the pint of water. Of this solution a teaspoonful is given every one or two hours, with the best results, sometimes, according to Ringer, relieving the noisy wheezing after one or two doses.

Often in children we find a catarrh of the bronchial and intestinal mucous membranes, either coexisting or alternating with each other. When such a condition persists after the employment of the ordinary household remedies, tartar emetic in the same doses of the solution just before mentioned, hourly repeated, will check both catarrhs without the use of further treatment. This plan is, at least, an advantage over the usual one of prescribing separately for the cough and diarrhœa. I am indebted to Ringer for the suggestions of the foregoing treatments.

In the treatment of syphilis we have come, as an almost universal rule, to rely upon the benefit of some form of mercury. That form most ordinarily in favor, in the earlier stages of the disease, is, I doubt not, the protiodide, and that in the more advanced stages the biniodide, in combination, perhaps, with iodide of potassium. Special symptoms will arise, however, during the progress of such treatment, or present themselves primarily for treatment, that do not appear to be immediately influenced by either of the forms of mercury mentioned. Such, for instance, is the cephalalgia that I have seen rack and torment the patient, in spite of large doses of chloral hydrate and bromide of potassium in combination, phosphorus, the hypodermic employment of sulphate of morphia, or even free doses of iodide of potassium, the patient in the meanwhile undergoing a course of mercurial treatment after the plan above mentioned. The iodide of potassium may, however, afford relief from the pain after a certain duration of time, but perhaps not until much exhaustion has been caused by the intense suffering.

It was after I had almost been baffled in dealing with such a case that I read in one of our journals, I think the *Medical News and Library*, an extract from a foreign journal upon the treatment of this complication in syphilis, by Dr. Peter, of Paris. He recommends the use of calomel in the one-sixtieth of a grain doses every hour until the pain is relieved. Coming from such respected authority, I determined to use this treatment at the first opportunity. The case presented itself in time and was a fair one to test the value of the treatment upon. No sleep had been obtained for three nights, and so great was the pain that there was complete anorexia. Before using a dozen of the powders, in which form the calomel was given, relief was obtained and sleep procured. In thirty hours the pain had entirely ceased, and no more powders were used. No signs of mercurial salivation were shown, and the appetite returned as soon as the pain was relieved. This result was a decided advantage over that obtained in another case from iodide of potassium, where it was at least three days before any relief was experienced from pretty free doses. No form of mercury had been previously used in this case, as the cephalalgia was the complaint that caused the patient to seek medical advice. Its syphilitic character was readily determined by the aid of other symptoms present and the history of the case.

A favorite treatment with many physicians in the summer diarrhœas of children is calomel, either alone or combined with some adjuvants, given in varying doses. I cannot express much of an opinion concerning this treatment, though I doubt not it is of value, when the doses do not exceed a certain limit. I have, however, frequently had occasion to prescribe calomel in doses of $\frac{1}{10}$ of a grain, hourly repeated, in the gastro-intestinal catarrhs of infants, especially where the vomiting was a troublesome element of the complaint, with beneficial results. It is a treatment that I first heard recommended by Prof. J. B. Biddle, of Philadelphia, when I was a student.

Following the suggestions of Ringer, I have lately given preference to mercury with chalk, as the form of mercurial to administer in the summer diarrhœas of children. The usual dose is $\frac{1}{6}$ of a grain, given either with sugar or with three to five grain doses of subnitrate of bismuth, hourly repeated. Trousseau recommends this preparation of mercury in catarrhal diarrhœas, but in somewhat larger doses.

In a form of diarrhœa in children, likely to be mistaken for dysentery, but where the general symptoms are mild, and the special features are secondary to the diarrhœa, corrosive-sublimate will be found to render most satisfactory service in effecting a cure. The principal indication for the use of corrosive sublimate, according to Ringer, is the mucous character of the stools, whether containing blood or not. There may also be more or less straining at stool. I have used the corrosive-sublimate in such cases, in the proportion of a grain to sixteen ounces of water, which is half the strength recommended by Eustace Smith. Ringer recommends a grain to ten ounces of water. Of this solution, a teaspoonful is given every hour, or two hours, as the severity of the case demands. I have seen the character of the stools changed, and the number considerably reduced within six hours under this treatment. Hughes also recommends this treatment in his *Manual of Therapeutics*, a *quasi* homœopathic work.

Gonorrhœa may be said to be a specific catarrh of the urethra, where every practitioner has his own favorite remedy. This, of course, may depend upon the stage of the complaint, and other modifying circumstances. I here acknowledge my thanks to Prof. Ringer for his valuable suggestions on the treatment of this complaint, in his work so often quoted by me in this paper. When a case of gonorrhœa can be seen in the first twenty-four hours of the attack, as has been my good fortune in several instances, an injection of a solution of chloride of zinc, one grain to a pint of water, used every hour, will cut short the attack in twenty-four hours. I can bear testimony to this fact. My impression, from the trial of other remedies, is, that an important factor of this treatment is the frequency of repetition of the injection, especially when the agent is mild.

About a year ago, under the head of "Notes of Hospital Practice," there appeared in the *New York Medical Journal* a paragraph on the value of small doses of copaiba in urticaria, as employed by me at the New York Foundling Asylum. Two cases, both of which were of a chronic nature, were especially cited to illustrate the beneficial results of this treatment. In these cases, to repeat, the affection had existed for two or three months, unsubdued by the usual treatment of salines and purgatives, and afterwards of arsenic and iron. It occurred to me to prescribe drop doses of copaiba three times daily. The theory of the treatment was founded upon a desire to test the value of the *similia similibus curantur* principle. It was a purely tentative treatment with me, though I have since been informed that the same treatment for urticaria had been noticed in some of our numerous medical journals previous to the date of my cases. I have not been able to find any journal containing any information on such subject, and therefore modestly lay claim to the originality of the treatment. I am willing to surrender my claim whenever a worthier claimant for priority presents himself. These cases yielded most gratifying results, and since then I have treated numerous cases in children with a like success, as far as my knowledge of the result of those cases extends.

My main experience with the use of copaiba in urticaria has been amongst children, but I have had occasion to administer it in an acute attack in the adult. It was a severe one, following the eating of lobster-salad. It had persisted in its severity for three days and nights, before I began the use of the copaiba. Purgatives, saline diuretics and mustard foot-baths had been freely given in the meantime, without any perceptible improvement of the eruption. Drop doses of the copaiba were then given every hour, and in eight hours there was a marked diminution of the eruption, and the next morning it had entirely disappeared. It may have been that this result would have occurred spontaneously, but, following so closely upon the use of copaiba as it did, it appeared to me at least a remarkable coincidence, that justifies further trials of a similar treatment in future cases.

Two cases of retarded menstruation, occurring in healthy females, non-pregnant, and ordinarily regular, have been treated by me with drop doses of fluid extract of ergot, hourly repeated. The menses appeared within twelve hours after treatment was commenced. Both cases were only a few days beyond the regular time, not over five days, and there was no reason to suspect pregnancy, though both were in married women. There were some slight premonitory symptoms of an approaching epoch present in each case. In one of the cases the same treatment was employed a second time, one year after the first, with a like success.

Stillé mentions the employment of ergot in amenorrhœa, and quotes Ackerly, Dieu, and Neligan as reporting successful cases in its favor. The dose is not mentioned. Ringer merely refers to it as being recommended. Bartholow states that it has cured amenorrhœa due to plethora, but does not give the dose. In three cases of epistaxis of a severe degree—one apparently due to vicarious menstruation in a young negress, the second probably due to a lesion of the cardiac valves, in a small girl, and the third likely complicated with the hemorrhagic diathesis, in a male adult—marked benefit was derived from the use of fluid extract of hamamelis given in five-drop doses three times daily. Ringer recommends drop doses of the hamamelis to be given every hour until the bleeding is checked, and then continuing it for a few days in five-drop doses, three times daily.

In one case of heat-flushing, occurring near the menopause, following Ringer I have used $\frac{1}{30}$ to $\frac{1}{15}$ of a minim doses of nitrite of amyl internally every three hours, and an additional dose on flushing. The amyl may be given dissolved in alcohol, two minims to the drachm, and of this three to five drops are taken on a lump of crushed sugar. The result in my case, after one week's treatment, appeared satisfactory, when further sight of the case was lost.

Upon one occasion, on the recommendation of Ringer, I have given a trial to drop doses of tincture of aconite, repeated at first every fifteen minutes for four doses, and subsequently every hour, for the purpose of reducing temperature. The case was a severe and painful attack of pharyngitis accompanied with high fever, occurring in an adult. It was in reality a defaced form of scarlatina, the specific character of which was not at first recognized. After eight hours' use of the aconite, as above described, the temperature was found moderately reduced. Other treatment was then adopted, and the aconite was discontinued. Ringer states, however, that it is doubtful whether aconite will shorten the fever of acute specific disease, as scarlatina, for instance. Bartholow, on the other hand, gives it the highest praise in scarlatina, especially in the eruptive and desquamative stages of the disease. I have lately found fifteen to twenty grain doses of salicylate of soda, hourly repeated, to produce the most gratifying results in the scarlatinal pharyngitis of adults, allaying the pain and reducing the fever in a very short time.

Aconite receives the highest recommendation, especially for the purpose of reducing temperature and checking inflammatory processes, from both Ringer and Bartholow. The latter speaks of this medicine as a powerful agent which will produce manifest results in small doses, the more frequent use of which in the general profession has been discouraged by a prejudice, on account of its favor with homœopathic practitioners.

Digitalis and belladonna receive considerable notice from the above-mentioned writers, for their valuable remedial virtues in small doses. On the subject of digitalis Ringer remarks: "In all treatment, the object should be to obtain the greatest therapeutical effects with the smallest possible dose of medicine. This is particularly important with a powerful drug like digitalis; for large doses sometimes appear to increase the heart's embarrassment, and relief comes only when the dose is diminished. Further, it is important not to give a larger dose than is necessary, since it is very likely the patient may require to take it for a long period, and, becoming accustomed to the medicine, the dose which at first did good seems partially to lose its effect and requires augmentation; but this could be done only with the greatest caution, and even then with some hazard, if the maximum quantity had been given in the first instance." Bartholow pronounces strongly in favor of belladonna as a cure for idiopathic erysipelas, especially when affecting the face. He also remarks its prompt action in acute nasal catarrh with profuse watery secretion, and in ordinary sore throat. He advises giving five drops of the tincture as a first dose and repeating with one or two drops every hour. Hughes regards belladonna as displaying wonderful powers in catarrhal throat affections.

Tincture of nux vomica also appears, according to Ringer, to be possessed of real curative powers, when given in drop doses, repeated every five or ten minutes for eight or ten doses and then continued at longer intervals, for "sick headache" accompanied with acute gastric catarrh, whether due to error in diet, con-

stipation, or no apparent cause. He regards it, administered in small and frequently repeated doses, as useful in many disturbances of the gastric function. Cantharides, in the form of the tincture, has received a trial from me, in small and frequently repeated doses. The case was one where there was a frequent desire to urinate, only a small quantity of urine being passed, with much straining, each time. There was no evidence of a lithiasis nor gonorrhœa. The urine did not contain albumen nor blood. There was a small deposit of mucus. I diagnosed the case as a slight vesical catarrh of a subacute character. It had existed for three days. One drop of the tincture of cantharides was ordered every hour, and the next day the patient reported himself as immensely improved, and the second day as well.

Many other medicinal agents are mentioned by Ringer, Bartholow, and other writers, as being valuable and reliable in small and frequently repeated doses, in the treatment of various disorders. My friend, Dr. Geo. H. Fox, has informed me that he has witnessed decided beneficial effects from the use of small doses of pulsatilla in painful menstruation. Many of us have no doubt long been familiar with the use of small doses of castor oil in certain forms of diarrhœa in children. An every-day practice, that has become so common as perhaps not to attract our attention to the fact, is the large use of mineral waters for the cure of various dyspeptic and renal complaints. Here the actual dose of the supposed remedial salts has been shown to be quite small, the only one taken in any appreciable quantity being chloride of sodium, of which we use more in our daily food than is contained in a pint of most mineral waters.

It is a familiar fact, that the most successful treatment for acid dyspepsia now used in the daily practice of the medical profession is the administration of small doses of mineral acids before meals, and for promoting an increase of the acid of the gastric juice, the administration of alkalies before meals.

Dr. Edward Vanderpool, of this city, in an article on strychnia in tetanus and hydrophobia, published in the *Medical and Surgical Reporter* of May 7, 1870, refers to eight cases of tetanus, seven traumatic and one idiopathic, coming under his care, which he cured with rather large doses of strychnia, giving $\frac{1}{6}$ to $\frac{1}{4}$ of a grain every two hours until relaxation of the muscles took place, when the interval was extended to every six hours. He states that he published full reports of these cases in the *New York Journal of Medicine*, Nov. and Jan. Nos. for 1846 and 1847. Hughes quotes these cases in his *Manual of Therapeutics* to prove and substantiate the doctrine of the law of similars. Such remarkable success in such a usually fatal disease ought surely offer encouragement to therapeutists to investigate the action of strychnia in tetanus. If any substantial virtue should be found in the treatment, in all probability smaller doses of such a deadly poison might prove to yield equally brilliant results.

The illustrations I have here offered of the value of small and frequently repeated doses might, from their general tone, lead one to infer that I was favorably inclined towards the homœopathic principle. But such is not the fact. I have had too many satisfactory demonstrations of the undoubted efficacy of full doses of medicines in the treatment of certain diseases to allow me to confine my belief in therapeutics to a single principle, as yet known

While the small doses of the medicines mentioned in this paper have been found so useful, I have also been at times filled with an exultant pride at my success in the treatment of acute dysentery with ʒ ss. to ʒ i. doses of ipecac, one dose usually effecting a complete cure; or the rapid cure of acute articular rheumatism with large doses of salicylate of soda; the happy effect produced by chlorate of potash in the ulcerative stomatitis of children; the almost specific action of quinia in intermittent fever; and the wonderful influence of tablespoonful doses of tincture of digitalis in delirium tremens.

If, then, I am asked to explain on what principle these small doses act in certain diseases, I reply, on the principle, so far as known, of actual experience (!) This is all we know about it. The homœopaths claim that it is explained by the law of similars, which is no explanation at all; and they pretend to make universal application of this so-called law in the treatment of disease. Trousseau, and Bartholow following him, attribute to it a substitutive action, or, as the latter writer expresses it, the therapeutical action is the physiological antagonist of the disease-action. If I might be so bold as to offer a theory of the action of small doses in the treatment of certain diseases, which in the totality of their symptoms and pathological processes correspond in a measure to the ultimate physiological action of the drug employed, I would submit the following:

Certain medicines in their physiological action manifest a primary stimulative and a secondary sedative effect. By primary stimulative effect I mean the action of the medicine when given in the smallest dose capable of producing appreciable results; and by the secondary sedative effect, the physiological action carried to and beyond the poison line. Opium, for instance, in small doses, is known to act as a stimulant, inducing wakefulness, while in ordinary ones it acts as a sedative narcotic. Alcohol, in small doses, is a general stimulant, while in large ones it is a general sedative. Aconite, in its action upon the heart, in small doses, slows the pulse by its irritative or stimulant action upon the origin of the pneumogastric in the medulla, while in large ones it increases the frequency of the pulse by its paralyzing or sedative action upon the pneumogastric. Upon the authority of Bartholow, camphor manifests one of its stimulant effects in small doses, by increasing sexual appetite, while in large doses it acts as a sedative or antaphrodisiac. In the therapeutical application of the primary stimulative effect of certain medicines, we aim at the same end we accomplish when we use the antiphlogistic touch of nitrate of silver to an ulcerated surface to hasten the healing process, or use a weak solution of sulphate of zinc to cure a conjunctivitis. What the intimate nature of this therapeutical process is we do not know.

In attempting to explain the therapeutical action of medicines, I agree with Stillé, who says that "whatever else they may do, experiments upon the healthy organism can never fully reveal the manner in which medicines cure disease, because in the latter case an element is involved which does not exist in the former."

In regard to the frequency of repetition of the ordinary dose, it is always necessary to bear in mind the disposition of the remedy to prolong its effects and the average time in which it is eliminated from the system. In respect to the repetition of small doses this may be important with only a few remedies, as for example, digitalis and belladonna. It will, I think, be found that the necessity for the frequent repetition of the small dose will be in direct ratio to the acute or chronic character of the complaint. Hourly doses will be best indicated in acute cases both to impress the disease quickly and maintain th

effect of the remedy; while in chronic cases a more chronic treatment is advisable.

The use of small doses whenever found advantageous may possibly lead to a general investigation of our pharmacopœia, with a view to the employment of the smallest quantity of those drugs, now used in large doses, capable of producing therapeutical results. It might be found safe to reduce the dose of many disagreeable-tasting medicines, as the muriate of ammonia, for instance, without impairing their valuable properties; and other valuable remedies likely to be followed by evil results, when given in large doses, might be found all the more valuable when used in smaller ones. It would certainly tend to elevate the standard of medical science in the minds of mothers and delicate invalids, and, at the same time, and above all, assure the physician that there was not so much danger as now of the features of the disease being obscured by the action of the remedy.

The use of small doses, as indicated in this paper, will also no doubt often afford the physician valuable service in relieving many obscure cases where the principal complaint is one or a certain group of symptoms that do not point to any discoverable lesion.

TABLE CONTAINING 96 CASES OF VESICAL AND URETHRAL CALCULUS,

UNDER THE CARE OF

PROF. GEORGE E. POST, M.D.,

OF THE SYRIAN PROTESTANT COLLEGE, AT BEIRÛT, SYRIA.

1. *Vesical and perineal stones removed by perineal section in the male.*

No.	Age.	No. of Stones	Weight in Grammes.	Kind of Operation.	Result.	Remarks.
1	55	1	125	Post.*	Death.	† Death from exhaustion after 21 days.
3	9	1	83	Post.	Recovery.	The same patient. Recurring stone.
4	15	1	18	Post.	Recovery.	
5	35	1	52½	Lateral.	Recovery.	
6	55	1	27½	Post.	Death. ‡	Atrophy of one kidney.

* The operation known as Post's operation is a modification of the bilateral in which the incision of the prostate is made with a gorget invented by Prof. Alfred C. Post, M.D., of the University of New York. This instrument consists of a canula sliding over a stout wire which has a probe point fitting the groove of the median staff. The distal extremity of the canula is conical, and on either side is a groove into which slides a half triangular blade. When the two blades are adjusted they define the incision to be made with accuracy. The proximal extremity of the canula is furnished with a handle. The mode of using the instrument is as follows: The usual incision having been made as in bilateral lithotomy, and the median groove of the staff having been exposed, the probe point of the guiding wire is introduced into the groove and carried on to the bladder. The staff is then withdrawn. With the guiding wire the stone is felt with ease, and the canula is slid along it with perfect precision into the bladder. The peculiarity of the gorget is the impossibility of slipping, and the perfectly definite incision which it makes. Different sizes of the blades suit the various sizes of the stones requiring operation. Of the safety of this instrument in the hands of a young operator, no better proof can be offered than the fact that Dr. Meshaka, of Damascus, one of the graduates of the medical school at Beirût, has operated 47 times with this instrument without a fatal case.

† The case No. 1 was that of a Moslem suffering from the exhaustion of a long cystitis; the unusual size of the stone, over 4½ ounces, and its exceedingly rough surface, caused more than usual injury to the neck of the bladder. The surface of the stone was covered with spiculæ a quarter of an inch in length. The close contraction of the bladder on the stone prevented lithoclasm.

‡ Case No. 6 presented the following features: The prostate was unusually large, and the bladder deep in the perinæum. No unusual hemorrhage accompanied or followed the operation. The stone was concavo-convex in shape, greenish in hue, with stalagmitic roughness of the edge, which was quite sharp and jagged. No untoward symptom occurred during nor after the operation until the fourth day, when he had sudden very copious diarrhœa, by which he was greatly reduced in strength. On the sixth day he began to be troubled with a cough and hiccoughs; the temperature on the fifth day was 103° F., evening. The following morning it was 101° F. From that time the pulse rose steadily ½° F. every twenty-four hours to the twelfth day, when he died with symptoms of pneumonia.

At the autopsy the right pleural cavity was found full of old adhesions, and the lower lobe of the right lung was hepatized. The lower lobe of the left lung was congested, but not hepatized. Heart normal. Digestive organs sound. Bladder contracted in the shape of an hour-glass, and its walls greatly thickened, especially at the base, where the thickness was two-thirds of an inch, and the mucous membrane ulcerated and much corrugated.

The left ureter was somewhat dilated near its point of entrance into the bladder, but opposite the primitive iliac artery it had become reduced to a fibrous cord. Following this cord to the place where the kidney should have been, no kidney appeared. After much search, a body resembling a kidney-bean in size, shape, and color, was found with the attenuated remains of the ureter attached to the place where the pelvis had been. This diminutive body was the remains of the fibrous connective tissue of the atrophied and vanished viscus. The opposite ureter was much dilated and tortuous, resembling the small intestines, and led to a much hypertrophied kidney, the pelvis of which was widely dilated, and the mucous membrane ulcerated. Granulations and ulcerations were found even to the extremities of the infundibula.

* In this case the prostate was very much hypertrophied and rigid, being cut with difficulty, and the bladder distant from the surface. The stone, which was a small one, scaled off from the mucous membrane, leaving an adherent sabulous layer which could not be wholly removed by the scoop. The death was caused by exhaustion from tenesmus of the bladder.

No.	Age.	No. of Stones	Weight in Grammes.	Kind of Operation.	Result.	Remarks.
7	18	1	5⁹⁄₁₆	Post.	Recovery.	
8	45	1	42½	Post.	Recovery.	
9	70	1	52⅛	Post.	Recovery.	
10	17	1	53	Post.	Recovery.	
11	23	1	43	Post.	Recovery.	
12	25	2	35	Post.	Recovery.	
13	50	1	38	Lateral.	Recovery.	
14	30	1	26	Post.	Recovery.	
15	30	1	17½	Lateral.	Recovery.	
16	5	2	15	Post.	Recovery.	
17	8	1	15	Post.	Recovery.	
18	17	1	20	Lateral.	Recovery.	
19	18	1	19⅜	Post.	Recovery.	
20	22	1	28	Lateral.	Recovery.	
21		1	12⅛	Lateral.	Recovery.	
22	13	1	28	Post.	Recovery.	
23	15	1	18	Post.	Recovery.	
24	10	1	11⅛	Post.	Recovery.	
25	65	1	7½	Post.	Death.*	Adherent to mucous membrane.
26	12	2	13	Post.	Recovery.	
27	8	1	7	Post.	Recovery.	
28	25	1	9	Post.	Recovery.	
29	35	1	9	Post.	Recovery.	
30	8	1	8	Post.	Death.	From peritonitis, arising from erysipelas of external parts.
31	55	1	7	Post.	Recovery.	
32	6	1	3	Post.	Recovery.	
33	65	1	22	Post.	Death.	Uræmia.
34	10	1	8⅛	Post.	Recovery.	
35	6	2	14	Post.	Recovery.	
36	18	1	7	Post.	Recovery.	
37	12	1	10	Post.	Recovery.	
38	6	1	7	Post.	Recovery.	
39	30	1	4⅛	Post.	Recovery.	
40	8	2	6	Post.	Recovery.	
41	10	1	4½		Recovery.	
42		1	8	Post.	Recovery.	
43	4	2	3	Post.	Recovery.	
44	4	1	3	Post.	Recovery.	
45	3	1	2⅛	Post.	Recovery.	
46	5	1	2	Lateral.	Recovery.	
47	10	1	2	Post.	Recovery.	
48	3	1	1⅛	Lateral.	Recovery.	
49	6	2	1⅛	Post.	Recovery.	
50	4	1	2⅛	Post.	Recovery.	
51	2	1	1	Lateral.	Recovery.	
52	3	1	⅓	Lateral.	Recovery.	
53	7	1	1	Post.	Recovery.	
54	3	1	1	Italian.	Recovery.	
55	20	200	7⅛	Italian.	Recovery.	Part of these were in the pouch in the bulbous portion of the urethra.
56	7	2	7	Post.	Recovery.	
57	3	1	1		Recovery.	
58	6	1	1⅛	Post.	Recovery.	
59	6	1	⅓		Recovery.	
60	5	1	2	Post.	Recovery.	
61	4	1	⅛	Italian.	Recovery.	
62	4	1	1½	Post.	Recovery.	

No.	Age.	No. of Stones	Weight in Grammes.	Kind of Operation.	Results.	Remarks.
63		1	2	Post.	Recovery.	
64	5	1	¼	Post.	Recovery.	
65	6	1	1½	Post.	Recovery.	
66	2	1	2	Post.	Recovery.	
67	6	1	3¼	Post.	Recovery.	
68	33	1	2	Post.	Recovery.	
69	4	1	1½	Post.	Recovery.	
70	5	1	3	Post.	Recovery.	
71	3	1	2½	Lateral.	Recovery.	
72	2	1	1	Post.	Recovery.	
73	4	1	1	Post.	Recovery.	
74	50	70	5	Italian.	Recovery.	
75	3	1	2	Lateral.	Recovery.	
76	5	1	3	Lateral.	Recovery.	
77	3	1	2½	Post.	Recovery.	
78	14	1	8½	Post.	Recovery.	
79	25	2	25	Italian.	Recovery.	One of these was in the bulbous portion of the urethra and the other in the bladder.
80	18	1	10¾	Lateral.	Recovery.	

Urethral Stones in the Male.

No.	Age.	No. of Stones	Weight in Grammes.	Seat of Stone.	Operation.	Result.
1	5	1	⅛	Meatus.	Dilatation and extraction.	Recovery.
2	9	1	¼	"	"	"
3	4	1	⅓	"	"	"
4	3	1	⅕	"	"	"
5	10	7	2½	Membranous portion.	Perineal section.*	"
6	7	1	¼	Bulb.	"	"
7	25	65	70	Bulb, membranous portion and prostate.	" †	"

Cases of Lithotrity in the Male.

No.	Age.	No. of Stones.	Weight in Grammes.	No. of Sessions	Result.	Remarks.
1	20	1	3½	4	Recovery.	No. 5.—This patient, after six months from the time of first session, still suffers from chronic cystitis.‡
2	25	1	2	2	"	
3	35	1	1½	1	"	
4	50	1				
5	70	1	5	2	"	

* This case was one in which a chain of stones, six of which were about the size of a medium-sized pea, and the seventh (the most anterior) the size of a small filbert. This chain occupied the membranous portion of the urethra, projecting anteriorly into the bulb, and posteriorly into the prostate. Its length was one inch and three-quarters. The adjacent surfaces were worn into facets resembling the adjacent faces of the caudal vertebræ in animals.

† In this case the patient had been the victim of a vesical stone in infancy, and was operated on by a professional Arab stone-cutter by the recto-perineal method without staff. The result was a recto-urethral fistula communicating with the perinæum anterior to the sphincter ani. Into a pouch of this fistula the fæces, containing grape and lentil seeds, appear to have entered, and around these as a nucleus were formed the above-mentioned number of stones. Of these the central one, which is of the shape of a Prince Rupert's drop without the terminal hook, is three inches in length. The blunt end presented anteriorly, and the sharp end projected backwards to the neck of the bladder. This stone weighed 68 grammes. On its surface are many facets in which were smaller concretions, the combined weight of which is about 2 grammes. The total number of concretions is sixty-five, all of them formed around seeds as above mentioned. The stones were removed by a simple perineal section, and the walls of the sac thus left removed to the depth of the urethra. Unfortunately the patient left the hospital before the fistula had closed, and has not since returned.

‡ This patient, during the second session of the lithotrity, twisted his ankle. He allowed it to be seen by an ignorant woman, who pronounced it dislocated, and "set" it. Severe inflammation of the joint supervened, followed by necrosis of the astragalus. The severity of the inflammation was such that at one time his life was despaired of. Notwithstanding this intercurrent accident, and the persistence of the cystitis, the patient survives, and at times experiences relief from the tenesmus. No concretion has collected again in the bladder.

Stones in Females.

No.	Age.	No. of Stones	Weight in Grammes.	Operation.	Result.	Remarks.
1	60	1	80	Incision of urethra to neck of bladder, dilatation of neck.	Recovery.	This patient regained complete control of micturition in six days after operation.
2	16	1	54	Dilatation.	Death.*	Perforating ulcer of bladder.
3	6	1	5¼	Dilatation.	Recovery.	Incontinence of urine.
4	35	1	4	Dilatation.	Recovery.	Good control of urine.
5	25	1		Dilatation.	Recovery.	

Reports of Hospitals.

COOK COUNTY HOSPITAL, CHICAGO.

Service of Prof. HENRY M. LYMAN, M.D.

A CASE OF PNEUMO-PYOTHORAX WITH EXTENSIVE CASEOUS INFILTRATION OF LUNG FOLLOWING PLEURITIS.

J. T., a colored man, 23 years old, was admitted March 1, 1877. He was a stout and vigorous-looking man, and said he had been working in the hold of a ship and had caught cold several times of late. Two weeks before, he began to cough, and a week before, he had expectorated for two days bloody sputa.

About this time he caught a fresh cold, had cutting pains in the right side, and was obliged to quit work. Fever had come on, with thirst, scanty and high colored urine. He now found it impossible to lie on the right side, and sleep was prevented by pain in the right mammary region, and constant cough. His appetite had been good and the bowels had been regular; the tongue was clean.

Moist râles were discovered over the right chest posteriorly, while in front friction sounds were heard.

His case was regarded one of pleuritis, and he was put to bed with a large poultice over the right side; a ten-grain Dover powder was ordered for each night, and a muriate of ammonia mixture every four hours.

By March 6th he had greatly improved, and the poultice was discontinued. There was now no pain, and the patient ate and slept well. The chest was ordered painted regularly with tincture of iodine. In two days more the friction sounds had disappeared entirely, as well as the râles.

March 10th, there was an exacerbation, in which friction sounds were detected over the whole of the right chest as well as dry and moist râles throughout the right lung. Fever again appeared and all the previous constitutional symptoms.

On March 23d, convalescence seemed again established. The friction sounds were gone, as well as mostly the râles. A slight sonorous râle was heard here and there, but there was no evidences of effusion. The paintings with tincture iodine had four days previously caused blistering and been discontinued.

Things went on smoothly until April 2d, when a

* In this case the stone consisted of a nucleus, the size of a hickory-nut, and of a soft, friable cortex, which broke down under the forceps. Much sabulous matter lined the bladder, and required to be scraped off by a scoop. The patient seemed to be doing well until the twentieth day. On the nineteenth day she had asked leave to return to her home, but was advised to remain a few days longer. On the twentieth day she had sudden symptoms of perforation of the bladder, and died within twelve hours. No autopsy was permitted.

new set of signs are recorded. Now there was found dulness over lower portion of the right chest, extending nearly to the lower angle of scapula, with a faint vesicular murmur and diminished vocal resonance over the dull region. Pain and soreness were complained of in the part. He was given digitalis and squills in powder, and improved so that on April 14th the record was made that examination revealed no lesion.

About April 14th, however, he began again to suffer pain in the right side. April 16th, he was evidently much worse; his pulse was 132, temperature 103¾° F., and respiration 44. April 17th and 18th, the pulse was 140, respiration 40, and temperature 101° F. Bronchophony, bronchial breathing, and increased fremitus were found over lower part of the right chest; this region was dull on percussion. Tincture of iodine was again painted over the affected region, and it was covered with oil-silk; quinine was given in liberal tonic doses (gr. iij. every four hours), and, three days later, a half ounce of whiskey was added to each dose of quinine.

The man continued in much the same condition, the signs of lung lesion not abating until May 12th, when cod-liver oil was ordered, a half ounce three times daily.

Examination on May 17th revealed, in addition to previously existing signs, amphoric breathing and voice over the lower part of the right chest posteriorly. Succussion gave a swashing sound in this neighborhood.

Aspiration was performed below the sixth rib under the axilla, a small quantity of pus being secured.

Patient died May 22d.

Necropsy, 30 hours after death. About a quart of sero-pus was found in the right pleural cavity. The lung was considerably contracted, and was filled thickly with masses of caseous matter—the masses varying in size considerably.

At about the centre of the surface of the lung, vertically, there was an opening from a cavity within the lung to the pleural cavity outside. This opening was immediately beneath the axilla, and was of the size of a goose-quill.

The entire pleural cavity was lined with a thick pyogenic membrane.

The opposite lung was healthy. No lesion was found in the liver, kidneys, or intestines.

Prof. Lyman, in a clinical lecture, said he regarded this case as one of caseous pneumonia, induced by the long continuance of a purulent pleuritis, and by prolonged compression of the lung. The first pleuritic effusion was undoubtedly not pus, but serum.

The opening in the side of the lung was made by the ulceration and enlargement of a cavity in the lung of considerable size, made by softening and liquefaction of one of the caseous masses.

A PECULIAR CASE OF EMPYEMA, WITH DEPOSIT OF MILIARY GRANULATIONS UPON THE PERITONEUM LINING THE DIAPHRAGM.

A. B., æt. 22. was admitted with acute pleuritis of right side. The effusion was considerable. Acute symptoms subsided, but fluid remaining, aspiration was performed after several weeks, and six ounces of serum, with no admixture of pus, was drawn off.

The patient did not improve, but grew worse, became very weak, and soon passed into a typhoid state; the chest partially refilled with fluid, and death occurred four weeks after the aspiration. The operation was not repeated, owing to the typhoid condition. There was at no time any sign of disease of either lung or of the bronchial tubes; there was no cough.

A necropsy showed the right pleural cavity half full of sero-purulent fluid. Flakes of purulent lymph were loosely attached to the pleural surface everywhere in the right chest. The lung was condensed, but healthy.

The abdominal organs were all healthy. Miliary granulations were found thickly studding the peritoneum of the inferior surface of the diaphragm at the part where it overlies the liver and where it covers and passes behind the spleen. The surface of peritoneum thus filled with the tubercles was about the size of a man's hand on each side. A few granulations were found in that part of the peritoneal covering of the liver and spleen lying against the granular surfaces of the diaphragm. A careful search for miliary tubercles elsewhere in the body failed to discover them in any other organ or part.

Dr. Lyman was of opinion that this case—because of the undoubted development of miliary tubercles following a purulent inflammation of the pleura—lent color to the theory that this species of tubercle is always due to the resorption of matter from cheesy foci.

Progress of Medical Science.

Treatment of Intussusception by Abdominal Section.—In an article on this subject Prof. H. B. Sands embodies the history of a case in which the operation of laparotomy proved successful. The patient was an infant, six months of age, and was seen twelve hours after the symptoms began. She was then in great pain, and in a condition approaching collapse. There were vomiting and severe tenesmus, which was attended by the escape of bloody mucus from the rectum. The evacuations contained no fæces. On palpation an elongated tumor could be felt, extending from the left iliac to the left hypochondriac region. On rectal examination the invaginated intestine was at once discovered, reaching down nearly to the anus, and filling the rectum completely. By conjoined manipulation the continuity of the rectal with the abdominal tumor could be distinctly appreciated. Several attempts were made to effect reduction by pushing up the rectal tumor with the finger, by inflating the intestine, and by the injection of warm water. These measures caused the abdominal tumor to disappear, so that it could no longer be discovered by palpation, but an examination by conjoined manipulation convinced the Professor that a certain portion of the intestine was yet unreduced. The abdomen was then opened by an incision two inches in length, below the umbilicus, and after some delay a tumor was found in the right iliac fossa, which proved to be the intussuscepted mass. On withdrawing it from the abdomen, it was found to be an intussusception of the cæcum and terminal portion of the ileum into the commencement of the ascending colon. On account of the rigidity and swelling of the intestinal coats, which were dark colored and ecchymotic, the disinvagination was difficult. It was effected mainly by pulling the outer or ensheathing layer of the intestine downward, and by squeezing the lower end of the intussuscepted gut. Considerable force had to be used. The wound was closed by five silver sutures. The pain, vomiting, tenesmus, and discharge of bloody mucus ceased immediately after the operation, and the bowels moved naturally on the second day. The subsequent recovery was complete.

After briefly describing the varieties and symptoms of intussusception, and analyzing the statistical tables

of the operations of abdominal section that have been performed for its cure, Prof. Sands closes his paper with the following deductions:

1. The success which has already been obtained in the operation of abdominal section for intussusception is sufficient to justify its repetition, when other means have proved unavailing.

2. There is reason to believe that in intussusception, as in strangulated hernia, the great danger lies in delay, and that, in acute cases, the operation, to be successful, must be performed at a very early period, probably within twenty-four hours from the invasion of the disease.

3. In chronic cases the operation is indicated when other means have failed, and there is reason to think that the invagination is still reducible.

4. It has been proved by the case herewith related, that the operation may succeed in acute cases, if performed during the first eighteen hours.

5. The greater fatality of the operation in infants has been shown to be rather apparent than real, and it remains to be proved whether in them, the performance of abdominal section for intussusception may not yield gratifying results.

6. In infancy the operation is more justifiable, because during that period, there is hardly any tendency toward spontaneous recovery after sloughing of the intestine.—*New York Medical Journal*, June, 1877.

Simple Dilatation of the Stomach in Chronic Dyspepsia.—At a recent meeting of the Société de Biologie, M. Leven presented the stomach of a man, who died while under his care, presenting all the symptoms of a cancer of this organ. For a long time he had suffered at intervals from black vomit, had lost flesh, and shown all the signs of gastric cancer, or certainly ulcer. M. Leven, having recognized that he was simply troubled with a chronic dyspepsia of long standing, with great dilatation of the stomach, treated the case by means of the stomach-pump. He removed a very large quantity of fluid, and directly afterwards the patient, feeling his pains no longer, begged for something to eat. Thus he was able for some time to take nourishment without vomiting. Unhappily the cachectic state was already so far advanced that this treatment, while ameliorating his condition, did not restore him to health. He died, and at the autopsy it was found that the stomach was free from any trace of cancer or ulceration. On the posterior surface great dilatation of the blood-vessels was found, as occurs in chronic dyspepsia with simple dilatation. M. Leven states that a large number of patients are thought to have gastric carcinoma when it is simply dilatation in connection with dyspepsia. He has a number of cases to support this statement, and he thinks the stomach-pump may, by its appropriate use, save life.—*Gaz. de Hôpitaux*, May 8, 1877.

Fissures of the Anus Consecutive to an old Eczema.—A woman was recently admitted into the *Hôpital de la Charité* under the care of M. Gosselin, giving a history of acute and very intense pains after defecation, which had persisted for two months and a half. The pains were not accompanied by obstinate constipation, or by any vaginal or urethral discharge. The patient was anæsthetized, and an examination revealed four or five erosions around the anus. The erosions were red, granular and not elevated, and extended in the form of rounded cracks, five or six in number, for a short distance into the intestine. There was no contracture of the sphincter. The skin around the erosions was thickened and grayish, and the appearances presented by it were similar to those observed in cases of erythema and eczema of the anus. The diagnosis was multiple erosions consecutive to an old eczema, and probably excited by scratching with the nails. M. Gosselin performed forcible dilatation of the sphincter, with a view to facilitate the passage of fæcal matters by enlarging the passage through which they escaped. Small pledgets of charpie, coated with the ointment of rhatany, were then introduced into the rectum, and applied especially to the points of solution of continuity. The excoriated surfaces were covered with rice powder.—*Gazette des Hôpitaux*, May 24, 1877.

Treatment of Hydrophobia by Oxygen.—A girl, seven years of age, was bitten by a rabid dog. The wound, which involved the subcutaneous cellular tissue, was at once cauterized with nitrate of silver and healed completely in seven days. The child had suffered three months previously from diphtheria, which had left a paralytic aphonia. When the wound had healed the child became very excitable. Seventeen days later dyspnœa suddenly manifested itself. The inspirations were free, but exspiration was difficult and interrupted. Deglutition was almost impossible; the pulse was rapid and the fingers contracted. Neither urine nor fæces were passed for forty-eight hours. The child inhaled three cubic feet of oxygen, which relieved the symptoms in two hours and a half. The next day a more severe attack occurred, with spasm of the muscles of the back and limbs, spasmodic respiration, and complete insensibility. These symptoms were again removed in three-quarters of an hour by the inhalation of oxygen. The slight dyspnœa which remained was treated in the same manner with oxygen for ten days, and the child made a complete recovery, with the aid of the monobromate of camphor, which was continued for two weeks.—*Wratschebuija Wedomosty*, No. 36.

On Acute Poisoning by Salicylate of Soda.—Dr. Petersen reports the case of a girl, fifteen years of age, who was given by mistake twenty-six grammes (nearly seven drachms) of salicylate of soda between six A.M. and six P.M., or twenty-two grammes between twelve M. and six P.M. Fourteen days previously the patient had undergone a resection of the ankle-joint for chronic fungous arthritis. Some of the symptoms of poisoning were different from those described by other writers. The patient's psychical condition was very striking—perfectly rational periods alternating with manifestations of insanity of a sombre character. This condition gradually disappeared in about eight days, the rational periods gradually becoming longer. The temperature had no influence on the psychical disturbances. After her recovery, the patient remembered nothing that had happened during this entire period. In her rational intervals she complained of severe headache, ringing in the ears, deafness, and impairment of vision for distant objects. For three or four days there were strabismus divergens and marked midriasis; for four or five days there was hoarseness, but as a laryngoscopic examination could not be made, Dr. Petersen is unable to say whether it depended on a laryngitis or on paralysis of the vocal cords. The respiration was rapid (forty per minute), but inspiration was quite deep. The pulse varied independently of the temperature, being at one time between 120 and 130, and at another between 80 and 90. The salicylate of soda did not in this case exert a prompt influence on the temperature. Circumscribed spots of vascular dilatation, which changed their position from time to time, were observed on the face, neck, breast and leg; these lasted for three days. A bed-sore rap-

idly formed on the sacrum, and was ascribed by Dr. Petersen to the vaso-motor disturbances. There was vomiting, but no gastric pains; no diarrhœa, but a very fetid smell to the fæces. The urine contained at first one-fifth per cent. albumen, which gradually disappeared. There was no œdema of the legs. The treatment was symptomatic. Bromide of potassium was administered. During the subsequent two weeks traumatic erysipelas set in on two occasions, but was arrested by subcutaneous injections of salicylic acid. After the last injection, symptoms of poisoning (redness of face, dilatation of pupils, frequent respiration, pulse of 130, etc.) set in, although the dose administered was very small (6 grms. solution=2 ctigrms. acid).

In two cases of very painful coxitis Dr. Petersen administered salicylic acid internally with benefit. In three other cases of erysipelas he also obtained very favorable results from subcutaneous injections of one gramme of a concentrated solution of salicylic acid.—*Centralblatt für Chirurgie*, May 5th.

A New Method of Curing Popliteal Aneurisms.—Dr. Martin Burke, of Bellevue Hospital, reports three cases of popliteal aneurism, that were cured by compression of the femoral artery by means of a conical bag filled with shot, which was suspended from a height in such a way that the apex of the cone pressed on the artery in Scarpa's triangle. In the first case pulsation in the aneurism ceased in eight days; in the second, in sixteen days; and in the third, in six days. The cure was slow in the second case, on account of the patient's neglect to keep the apparatus in place. During the treatment little or no pain or uneasiness was complained of in any of the cases.

The shot-bag was made of canvas, in the form of a flattened cone, the apex measuring one inch in diameter. A rounded piece of cork or India-rubber, one inch in thickness, was fitted accurately into the apex of the cone, and a long thin rod reaching down to and resting on the rubber or cork was then inserted and held in the middle of the cone while the shot was poured around it, until the bag weighed about twelve pounds. A piece of canvas, with a hole in the centre for the passage of the rod, was then stitched over the base of the bag, and a stout wire hook fastened to its centre. The bag was suspended to a pulley in the ceiling by means of a rope, with which it was connected by a piece of rubber tubing and a large-linked chain. The tubing made the apparatus elastic, and the chain enabled the Doctor to regulate more easily the amount of pressure employed.—*New York Medical Journal*, June, 1877.

Removal and Reproduction of the Entire Clavicle.—Dr. Porquet, of Vire, reports the following interesting case: A strong, healthy countryman, 19 years of age, was suddenly, and without known cause, seized with a violent pain in the right shoulder, on November 1, 1864. The pain and fever were intense, and for four or five days he was delirious. An abscess soon appeared over the outer end of the clavicle, which discharged for four months. In July, 1865, this abscess reopened, and a second one formed at the sternal end of the bone. Voluminous fungous growths were developed in both abscesses. These fungosities were destroyed by cauterization, but the suppuration continued, and destroyed a small portion of the skin, exposing about three centimeters of the bone. In November the patient consented to an operation; an incision was made parallel to the clavicle, and the bone was removed entire without difficulty. The wound was dressed simply, no apparatus being employed. The suppuration was at first very abundant, but at the end of three months cicatrization was complete. The removal of the clavicle had left a considerable depression at the upper part of the chest, but this gradually filled up, and by September 1, 1866, *nine months after the operation*, a new clavicle had been almost completely reproduced. Except for 15 days at the beginning of his disease, and for 24 hours after the operation, the patient was never confined to his bed; he worked and used his arm both before and after the operation, performing all the hard work that a farmer is called on to perform. To-day there is no deformity of the chest and no trace of the affection, except a cicatrix, which is not very marked.

The clavicle, which was removed, was carious at the two extremities, but intact in the centre. A small portion of the sternal articular surface was still left. —*L'Année Médicale*, May, 1877.

Primary Cancer of the Vertebral Column.—On October 14, 1876, a woman, aged 50, was admitted into the *Hôpital Cochin*, complaining of a severe pain in the left hip, which had set in suddenly a few days before. There was nothing about the patient to give rise to the suspicion of the existence of any diathesis. Shortly after her admission she had a severe attack of intercostal neuralgia on the right side. On December 15th she began to have fever, and was seized with intense pains all over the body, accompanied by great hyperæsthesia; the slightest touch caused pain. On the 20th, she began to have attacks of dyspnœa. From the 25th she lay with her head drawn backwards, and constantly groaning; her lips and tongue were dry, but the hyperæsthesia continued. She remained in this condition until the 3d of January, when death took place. The pulse varied between 120 and 130, and the temperature between $102\frac{2}{5}°$ and $104\frac{4}{5}°$.

At the autopsy numerous cancerous nodules, varying in size from a hazel-nut to a walnut, were found in the lumbar and dorsal vertebræ. The cancer was of the encephaloid variety. The cord appeared more diffluent than normal. Small cysts were found in the arachnoid, at the points of exit of the roots of the nerves. None of the other organs contained any traces of cancer. The left hip presented the lesions of a commencing arthritis sicca. On the posterior surface of the neck of the femur there was a small, hard nodule, developed from the periosteum, which may possibly prove to be cancerous. If so, its small size would indicate that it was secondary to the deposits in the vertebræ.—*Le Progrès Médical*, May 12th.

A Case of Hemimelia.—A man, aged fifty three, who died of phthisis in the *Hôpital Temporaire*, in last March, presented a congenital malformation of the left arm, which belonged to this rare class of deformities. None of his family were affected with any analogous deformity. The left forearm was absent, or rather was represented by a conical stump only four inches long. The arm was less voluminous, and an inch and a quarter shorter than the right arm. The stump could be moved, and during life the patient had been able to raise considerable weights with it. On removing the skin and fasciæ, all the muscles belonging to the outer side of the forearm were found, but they were very small. The long supinator was inserted into the lower end of the bone which represented the radius; the short supinator was normal, and the radiales were inserted into the skin at the summit of the cone. Of the muscles of the anterior

brachial region only the flexor carpi ulnaris and the flexor digitorum existed, both of which were inserted into the skin. In the posterior brachial region the extensor digitorum was found, which was inserted into the skin, and the extensor carpi ulnaris, which was inserted into a small movable bone at the inferior extremity of the ulnar. This probably represented the fifth metacarpal bone. The biceps was inserted into a tubercle situated in the usual site of the tuberosity; hence the movement of supination had been possible during life. Two small tubercles on the inner border of the stump were connected with the ulnar by a fibrous cord.

It is evident from the description that the malformation was not due to a spontaneous, intrauterine amputation; the presence of the terminal tubercles is enough to prove that. The brain and cord presented no lesion that could be discovered with the naked eye. —*Le Progrès Médical*, June 2d.

Complete Obliteration of the Common Iliac Veins and the Vena Cava Ascendens, without Œdema.—On February 1, 1877, a man, aged 56, was admitted into the *Hôpital Temporaire*, suffering from a strangulated inguinal hernia. The hernia had existed for twenty-five years, but had always been reducible until two days before his admission into the hospital, since which time he had passed neither fæces nor gas through the anus. As taxis proved unsuccessful, herniotomy was performed ninety-six hours after the beginning of the strangulation. It was found necessary to open the sac, and two loops of intestine, one ten inches in length, were found in it; the latter was violet in color, and had lost its polished surface. The reduction was easily performed. The operation was followed by a slight attack of peritonitis, but six days afterwards a marked improvement set in. The patient, however, suffered during the month of February from an obstinate diarrhœa, and from chills and elevations of temperature, attended, as a rule, by abdominal pain. In March, dyspnœa was added to the other symptoms, and on March 14th the patient died, apparently from failure of respiration.

At the autopsy, the neck of the sac was found to be obliterated; the intestines were congested, and presented some adhesions. In the true pelvis there was a cavity which was closed above by loops of intestine and by mesentery, and which contained a blackish, fetid fluid. The loop of intestine that had constituted the hernia was perforated in three places. The gall-bladder was surrounded by a collection of pus, which was retained in position by adhesions between the duodenum, the transverse colon, and the omentum. There were no abscesses or infarctions in any of the viscera. The lungs were congested at the bases; heart healthy. The internal and common iliac veins and the vena cava ascendens were filled with a clot, which obliterated them entirely, and extended as high as the renal veins. The internal surface of the vena cava was intensely red, as high up as the upper end of the clot. The clot possessed a fibrous envelope, smooth and dark red on its outer surface, irregular on the inner. In the centre there was some grayish-red, semi-fluid matter, forming a sort of false pus. In the common iliacs the clot was also softened in the centre; in the lower part of the left iliac vein it was compact and presented whitish, fibrinous lamina, separated by irregular dark-red masses. The lumbar veins were also obliterated by fibrinous clots.

The strange point in this case was the obliteration of the iliac veins and the vena cava ascendens, because during life there had been no symptoms to indicate this serious lesion. There had *never* been any œdema of the lower limbs. The subcutaneous abdominal veins were not abnormally dilated, and it has already been stated that the lumbar veins, at least in the immediate vicinity of the vena cava, were obstructed. The only case on record which is at all analogous to this is one reported by Castlenau, in which an almost complete obliteration of the vena cava ascendens, as high up as the liver, had only produced slight œdema of one leg. In the case here described, the only explanation of the absence of œdema is to be found in the fact that the patient being cachectic and depressed, the circulation was very slow.—*Le Progrès Médical*, June 2d.

Hypodermic Injections of Morphine as an Adjuvant in the Reduction of Inguinal Hernias.—Dr. Philippe, of Saint-Mandé, recommends the use of hypodermic injections of morphine in recent cases of strangulated inguinal hernia, and reports three cases in which he administered them with excellent results. Taxis had been previously tried in vain, but after the injection of from one-third to one-half grain of morphine, it was resumed and proved entirely successful. One of the patients was an old man, ninety years of age, who was afflicted with a voluminous, irreducible inguinal hernia on the right side. During a paroxysm of coughing a fresh loop of intestine was forced into the sac. The injections of morphia, however, can only prove serviceable at an early period after the descent of the intestine; at a later period they are far less valuable than anæsthetics, which not only relax spasm, but, if necessary, permit of an immediate resort to operation.—*Le Mouvement Médical*, May 26th.

Remarkably Slow Pulse.—Dr. Trastour reports a case of algid pernicious fever, in which for several hours the pulse only beat ten times per minute. It was regular, but excessively feeble. Under the influence of large doses of quinine, stimulants, and revulsives to the extremities, it gradually became stronger and increased to 25 in the minute. For three days it varied between 20 and 28. The chill was not repeated, but an aggravation of a chronic bronchitis, from which the patient had been suffering, and a severe attack of diarrhœa set in, which proved fatal a few days later. Previous to death the pulse rose to 92, but fell again to 80. At the autopsy no trace of a heart-clot or of an embolism was found, and Dr. Trastour consequently attributes the sudden and intense disturbance of the cardiac rhythm to the influence of the malarial poisoning. The patient had been travelling on foot through a malarious district before his illness. —*Gazette Médicale de Paris*, May 26th.

Extirpation of the Kidney.—Mr. Jessop, of the Leeds Infirmary, lately extirpated the left kidney of a child aged two years and three months, for malignant disease of that organ. The incision was similar to that recommended for colotomy, but longer. When the diseased mass was reached, the kidney was peeled by means of the fingers, and a whipcord was passed around the vessels and ureter and firmly tied. The remainder of the growth was afterwards stripped away and the whipcord left to drain the wound. The operation was a formidable one, owing to the large size of the diseased organ, and the free venous hemorrhage which followed the separation of the growth from the surrounding structures. When removed the kidney weighed sixteen ounces, and resembled encephaloid in appearance. At last accounts, five days after the operation, the patient was doing well.

THE MEDICAL RECORD:

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HOMŒOPATHY.

Within the past two months there has been some discussion in Great Britain concerning the merits and demerits of homœopathy, growing out of an offer, on the part of a distinguished follower of the doctrine, to join hands and interests with the regular profession. As this has been done before by parties who have been convinced of the error of their ways, the mere fact by itself has no great significance. But the peculiar circumstances under which the overtures were made, and the statements in connection with them, as well as the position of the person making them, have invited more than the usual attention. From the beginning it was a voluntary act on his part, with the best of motives, and with the avowed object of bringing about a reconciliation between the two schools of medicine.

The gentleman who took the initiative being Vice-President of the British Association of Homœopathy, his utterances were in the highest degree significant, if not almost committal on the part of his associates. But this is so far as the circumstances of the individual and the particular act in question are concerned. Behind all this there are matters of interest connected with the general subject which are brought prominently forward in the statements concerning the present status of homœopathy, and which give a reasonable promise at no distant day of a better understanding between the two parties.

The admission that homœopathy is not absolutely right; that errors have been committed by extremists; that the doctrine held by the founders of the system is markedly different from what it is to-day; and that it is not exclusive, is, we believe, a fair expression of the opinions of the majority of the Hahnemannites of the present day. In fact, the very name is becoming obnoxious; and not only in Great Britain, but in this country, efforts have been made by societies to dispense with it altogether. Further than this, it is proposed that a belief in the homœopathic creed shall not be insisted upon as a requisite for membership by candidates for admission into these organizations.

All this, we think, tends to prove that the exclusive dogma is a myth, and that true progress demands a greater expansion of ideas and a greater liberality of sentiment. It was, after all, this very exclusiveness on the part of the homœopaths which tempted the regulars to make martyrs of them and give them the opportunity of appealing to the public for sympathy and patronage. It was the latter course which caused them to be classed as designing quacks rather than innocent sufferers for mere opinion sake.

Nothing in a progressive science can be exclusive. The moment such a course is attempted there is an end to progress. It would be absurd to presume that the science of medicine is perfect, that the doctrines upon which it may now be founded are so far beyond question that there is no room for a difference of opinion and no toleration for unbelief. The contrary is the fact. The doctrine of homœopathy was not, as such, an offence to the profession, but its pretensions and absurd exclusiveness, its claim of absolute perfection and right, and its consequent intolerance of every contrary view.

Scientific medicine has the right and privilege of using any remedy and any means to benefit suffering humanity. The mere fact that a remedy is a so-called homœopathic one does not debar any one from using it. The regular profession do not believe in the doctrine of *similia similibus curantur*, but there is nothing to hinder it from employing very small doses, when ordinary experience and observation indicate that such a course is desirable. Any prescriber may have a theory to suit himself as regards the *modus operandi* of any given drug or sized dose, but he certainly has no right to assume that every one who does not hold the same view is necessarily a fool and a dangerous man. It was this absolutism that brought about a separation of the homœopaths from the regulars, while the gap was widened by the quackish endeavors of the former to appear to be what they were not. The fact that a practitioner believes in the doctrine of infinitesimals does not necessarily ostracize him, unless he refuses to believe in anything else. When the homœopaths are willing to acknowledge that there is another world than theirs, and are conscientiously inclined to study and practise medicine as a broad, progressive, and liberal science, there is no need to appeal for admittance to our ranks, for they are members already.

Scientific medicine is still what it always has been. It is not based on any single law, but is a simple accumulation of fact and experience bearing upon the treatment of disease. It must be necessarily liberal and progressive. As facts are the foundation of experience, it is with them we must deal, irrespective of the opinions upon which they may be apparently based. The physician who would not use a

remedy simply because it was employed by the homœopathist, would be as derelict of his duty to his patient as the homœopath himself, who, in his blind worship of his dogma, would not look beyond the pale of its influences to alleviate suffering or even to save life. The regular medicine of to-day is so perfectly untrammelled in its course that it appropriates everything which may be of service to the patient. Whatever is good of homœopathy, eclecticism, hydropathy, and every other "pathy" under the sun, legitimately belongs to us. If there be any significance in the present movement towards a proper understanding between the regulars and the homœopaths, it cannot be difficult for the latter to decide which is the mountain and which Mahomet.

HOSPITAL MANAGEMENT.

The medical press of London, in connection with the scheme to establish home hospitals for the well-to-do, are discussing the prospective management of the same. While acknowledging the necessity of vesting the purely managerial functions into the hands of laymen, it is urged that all matters medical should be subject to a strictly professional board. This is as it should be; but why the medical element cannot have a representative upon the central board does not appear. The reason assigned, that professional jealousies would be thereby engendered, is frivolous, if not absurd.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 23, 1877.

Dr. E. G. Janeway, President, in the Chair.

SUDDEN DEATH WITHOUT APPARENT CAUSE.

Dr. Mary P. Jacobi exhibited the heart removed from a primipara, who died during an attack of dyspnœa, five hours after labor. Two hours before death she complained of precordial pain and dyspnœa. The latter increased until death occurred, the patient retaining consciousness to the last. The specimen was chiefly interesting on account of the negative character of the appearances which it presented, there being no explanation for the cause of death. Dr. Jacobi did not see the patient during life, and was not able to give any more of a history than that received from the friends.

At the autopsy the heart was healthy, and contained a clot of blood in the right ventricle, stretching forward into the pulmonary artery. There was also a clot in the left ventricle stretching across the mitral orifice. These clots were evidently post-mortem. The veins of the uterus, ovaries, and broad ligaments were carefully examined, but no thrombi were discovered. There were no coagula in the pulmonary artery, nor in any of the traceable branches of the vessel. In fact, the cause of death appeared to be mystery.

Dr. Janeway remarked that it was always difficult to explain the cause of death in these cases when the idea of poisoning was left out of the question.

Dr. Jacobi remarked that the patient had not taken anything which might lead to the suspicion of poisoning.

Dr. Robinson believed that the clots were formed during the agony, as there were no impressions of the valves upon them.

PERSISTENT PLACENTITIS AND SUCCESSIVE PREMATURE DELIVERIES.

Dr. Caro exhibited a degenerated placenta, discharged by a woman aged forty-two years, who had been delivered that morning of a still-born child in the eighth month. She was married at twenty-two years, and eighteen years ago she had her first child, who is still living. Since that time she has had, including the last, fourteen still-born children. These were born consecutively every year except during the last four, when an interval occurred. On nine of these occasions he attended the woman himself, and in each instance the child was born between the seventh and ninth months, and the placenta was fatty. Everything was done to counteract the tendency to the latter condition, but to no purpose. The family history was good, there being no hereditary taint discoverable.

Dr. Caro mentioned a similar case of degeneration of the placenta, in which, during a period of ten years and after the first child, all the other four children in succession were still-born.

Dr. Briddon believed that such cases had usually a syphilitic history. He mentioned a case in point, in which, although no history of the kind could be obtained, the anti-syphilitic treatment effected a cure.

CIRRHOSIS OF LIVER.

Dr. C. Heitzmann exhibited a microscopic specimen of cirrhosis of liver, in order to demonstrate certain facts which have been discovered in his laboratory by Dr. H. Chr. Müller—at present in Port Jervis, N. Y.—and published in the seventy-third volume of the Transactions of the Imp. Academy of Sciences in Vienna. Dr. Müller found that the epithelial elements of the liver, in a healthy condition, are separated from each other by a small shell of cement-substance, but united in their living part through delicate threads, traversing the cement-substance. In morbid conditions, especially that termed "interstitial hepatitis," the cement-substance of several neighboring epithelia is melted, and in this manner clusters of protoplasmic bodies, provided with a great number of nuclei, are formed. The living matter, which forms the nuclei, the granules, and the uniting threads, next increases in size, thus producing a coarse granular appearance to the clusters. Each granule may give rise to a new protoplasmic body, which, being in connection with all its neighbors, turns to a spindle-shaped body. A great many of such indifferent or juvenile elements are transformed into a finely granular basis substance, mostly without distinct striation. Epithelium, therefore, first goes back to a youthful condition, forms indifferent elements, the latter being the basis for the shrinking connective tissue. At the same time many blood-vessels are transformed into connective tissue; hence, the latter is scantily provided with nourishing material. Many bile-capillaries fade away, while the remaining ones are dilated. This is, perhaps, the reason why the secretion of bile is interfered with in the highest degrees of the disease only.

REMOVAL OF VARICOSE VEINS.

Dr. A. C. Post exhibited a specimen of varicose veins of the leg which he had removed by operation from a male patient of the Presbyterian Hospital, aged

45 years, who had suffered from the disease for the last twenty years. For four or five years he had an obstinate ulceration. The excision of the varicose tumor was removed under carbolic spray, and the communicating vessels were tied. At the end of forty-eight hours considerable febrile excitement occurred, the temperature rising to 104° F. Coincident with this was a strip of redness which extended along the course of the saphena vein from the knee to the groin, with pain on pressure. This alarming condition was, however, soon arrested by full doses of quinine and the local application of blisters. The veins in the specimen were very much thickened and indurated.

EXSECTION OF ELBOW.

Dr. A. C. Post also exhibited the bones of the elbow-joint, removed by operation from a girl aged 9 years, who had been greatly disfigured by a burn. The right upper extremity had become very much contracted, and the late Dr. Gurdon Buck had performed several operations to remedy that condition. In the last attempt Dr. Buck accidentally severed the brachial artery during the division of the cicatricial tissue. The limb was then placed in a straight position. In December the patient came under the care of Dr. Post, who, in attempting to bend the arm, fractured the olecranon process. There was at the time a large ulceration on the anterior aspect of the arm, nearly surrounding the limb. A compound fracture existing, the limb was kept in a straight position until union took place. At the end of several months, the ulceration still persisting, the only chance for a useful limb seemed to rest in excision of the elbow-joint, which operation was accordingly performed, the limb being placed at a right angle. Two months after the operation the limb is in good condition, the ulceration in the anterior aspect of the arm has entirely healed, and there is some motion to the joint. There is some moving power in the fingers also, which will doubtless improve by time and exercise.

EXSECTION OF CARPUS.

Dr. Post also presented the carious carpal bones removed by operation from a policeman, aged 35 years, who fourteen years ago strained his wrist by lifting a heavy weight. Inflammation, suppuration, and destruction of the parts followed, and from that time until he came under the care of Dr. Post, there was a more or less constant discharge from a number of sinuses communicating with dead bone. The operation was performed under the spray. For more than a week afterwards there was very little febrile action. On the ninth day after the operation, without any apparent cause, the temperature rose to 104° F. Under quinine this was reduced. On the tenth day he had a mild attack of erysipelas, but the local condition of the wound was everything that could be desired. About April 1st he complained of some swelling of the feet, and a large amount of albumen was found in the urine, together with oily and waxy casts. This condition of kidney came on quite suddenly, as previous examinations of the urine had resulted negatively. He failed rapidly after this, and soon after died. It was somewhat remarkable that, notwithstanding the grave condition of the general system, the local condition was so favorable.

A CASE OF CIRCUMSCRIBED EMPYEMA FOLLOWING FRACTURE OF RIBS—COMMUNICATION WITH BRONCHUS—RADICAL OPERATION—PERICARDITIS—PLEURITIS OF LEFT SIDE—DEATH—POST-MORTEM.

Dr. Beverley Robinson presented a specimen of the above, with the following history: L. F., æt. 54, admitted to Charity Hospital, Jan. 30, 1877. Nine weeks previous, patient fell against table and fractured two ribs on right side. Prior to accident, patient in good health; ever since has had persistent cough and abundant expectoration. Physical examination reveals ordinary signs of empyema over median portion of right side of chest, posteriorly.

Further, in third intercostal space in front, superficial dry crepitus was noticed, and behind and under lower angle of scapula a *tumor* the size of a hen's egg, rounded, regular, and of solid consistence, was found; it was immovable under skin, which itself was healthy. Upon pressure it apparently disappeared into pleural cavity.

March 15th, irruption of empyemic contents into bronchus, followed by sudden much more profuse purulent expectoration; exploratory puncture evacuated small amount of pus from chest; radical operation was then performed over seat of tumor, but no more pus appeared, and wound was closed. When two days elapsed, discharge through wound, and evidently coming in great part from pleura. *March 25th*, signs of empyema were present below right clavicle, and a free incision was made in fourth intercostal space, below and outside right nipple; chest cavity was entered, but no liquid came from it. What was presumed to be middle lobe of right lung was felt. Posterior wound was now reopened, and soft catheter introduced into chest, and allowed to remain; anterior wound was closed. Within forty-eight hours pus came through catheter, and patient had greatly improved. Daily washings with detergent solutions were made, and discharge had notably diminished, when, *April 8th*, pericarditis, rapidly followed by pleuritis on left side, was developed, and patient succumbed, owing to sudden heart failure, *April 21st*.

Autopsy, made by Dr. E. A. Maxwell. Following condition of right side of chest was shown: *Pleura*, upper half prolonged to base posteriorly, is an immense cavity filled with decomposed pus; *costal pleura* at thickest point three-quarters of an inch thick, and so intimately adherent that house physician (Dr. Denslow) dissected it from chest wall; the cavity is lined by so-called pyogenic membrane, plentifully supplied by small blood-vessels; *pulmonary layer* forming inner layer of this cavity is one-eighth of an inch thick from fourth rib downward on anterior surface of lung; the two layers of pleura are united between the seventh and eighth ribs, about four inches anterior to the angle of rib. This empyema has perforated the thickened pleura, and opened discharges into the right posterior incision; the small point where it had perforated is irregular and three-quarters of an inch in diameter, and besides opening it, it communicates with a bronchus which can be traced to rest of lung; the mucous membrane of the latter is lined by exudations of croupous membrane; one inch behind and below this is another point where the empyema has perforated the pulmonary pleura. Corresponding to the first opening is an old fracture of eighth and ninth ribs. Underneath third intercostal space is a second circumscribed empyema of ovoid outline, two inches in longest diameter, running obliquely from third intercostal space downward and outward; the costal pleura is perforated, intercostal muscles disintegrated (this corresponds to the empyema noted on anterior wall of chest), and the pulmonary pleura over this space is destroyed by ulcerations. A direct communication with the bronchus can be traced at this point; corresponding borders of ribs are superficially necrosed for a distance of two inches.

Lung is pushed downward and inward, and is mark-

edly compressed; the prolongation of lower lobe causing moderate amount of fibrous induration; bronchi filled with thick muco-pus (tenacious); mucous membrane shows bronchitis.

Other organs had no special interest.

Remarks.—History of foregoing case appears interesting in several particulars: 1. Traumatic empyemas are relatively rare. 2. Circumscribed pleurites of purulent nature are even more infrequent. 3. After reading detailed account of post-mortem, so excellently narrated by Dr. E. A. Maxwell, one can appreciate the difficulties I had during life to arrive at a certain diagnosis. Why did I not achieve anything more positive and satisfactory by my operations? The reply is evident: at the time I made the first incision there was little or no pus in the empyemic cavity. There was a communication through the much-thickened pleura, covering the compressed right lung, and extending from the limited pyogenic cavity to a bronchus, and it was by this road the purulent exudation had evidently been expectorated as fast as it was formed. Doubtless this exit was effected at the time purulent sputa became suddenly more profuse. After an opening into the chest was made, the pus formed within the empyemic cavity, took this route towards the exterior, rather than the one by which it passed before. When I believed I was in contact by my index-finger with the middle lobe of the right lung, I was touching a thick, though smooth false membrane, covering its entire under-surface.

I here desire to express my thanks to Drs. Rush and Denslow for efficient aid afforded me in the treatment of this very interesting case.

CARIES OF TARSUS—EXSECTION.

Dr. Erskine Mason presented a patient upon whom he had performed exsection of the ankle-joint. The history of the case was as follows:

Mary Mulhoern, N. Y., æt. 13. Admitted Roosevelt Hospital, October 10, 1876. Patient's family history good. Seven years ago, patient felt pain in right ankle. Does not remember having received any injury to part. It became very painful and swollen. Various methods of treatment were tried. After six months a number of openings formed spontaneously, discharging pus and blood, but no pieces of bone were noticed to come away. Two years later there was much improvement. Discharge from the ankle has continued ever since, and at intervals patient would suffer very severe pain.

On admission, find patient's right ankle swollen, slightly inflamed, and quite tender to the touch, but not severely painful. There are a number of sinuses opening on posterior part of ankle, from which flows a bloody serum. Dead bone is touched through these sinuses.

The affected limb is atrophied, and there is talipes equinus.

Measurements.

Circumference of right (diseased) leg just below knee	8	inches.
Circumference of left	8¾	"
" at calf right leg	7½	"
" " " left "	9⅝	"
" just above right ankle	6¾	"
" " " left "	6	"
" instep right foot	8¾	"
" " left "	7⅞	"

Treatment.—Rest and wet antiseptic dressings applied to foot till February. Patient much improved; condition good. Ankle but slightly painful. Probe still touches dead bone.

Feb. 10th, 2.30 P. M.—Patient under ether. Resection of ankle-joint performed by Dr. Mason, assisted by house surgeon. Esmarch's bandage having been applied, a curved incision, about four inches in length, was made with scalpel, commencing about two inches above the lower extremity of fibula, extending downward and forward over the malleolus, and extending forward parallel with the sole of the foot about two inches (the tendons of the peronei muscles being drawn back out of the way). The periosteum was then separated from the lower end of the fibula, and its extremity, which was much diseased and softened, removed with bone-pliers. It was then discovered that the disease extended into the joint.

An incision was then made over the inner malleolus similar to the one on outer side of ankle, and the lower end of tibia reached. The tendon of tibialis anticus was carefully drawn to one side, and the extremity of tibia removed with bone-pliers, it being found to be carious and quite soft. Upon examination, it was found that the articular and upper surface of the astragalus was very much diseased, and that much of it had ulcerated away. It was very loosely attached, and was easily removed with necrosis forceps. The lower extremity of both tibia and fibula were then carefully scraped, removing all diseased bone. Esmarch's bandage was then removed. Hemorrhage was very slight, no ligature being used. The wound was irrigated with sol. acid. salicylic, and few silk sutures used. A drainage-tube was run through the ankle from side to side, through opening left near the centre of each incision. A plaster-of-Paris bandage splint was then applied, strengthened in front and behind by narrow strips of tin, bent in a loop over the toes and ankle, by which the limb could be readily suspended after the operation.

Feb. 11th.—Patient did nicely, and had very little pain. She gradually improved until April, when all supports were removed.

REPARATIVE PROCESSES IN POPLITEAL ANEURISM TREATED BY GENUFLEXION AND COMPRESSION.

Dr. Chas. K. Briddon presented a specimen of popliteal aneurism as a nucleus around which he had woven the history of the case of the late Prof. C. A. Budd. The thoracic aneurism which was the cause of death he had placed in the hands of Dr. Loomis; but as that gentleman was not present, he would, in connection with his own specimen, detail the autopsical appearances of the cavities of the chest and abdomen. Dr. Briddon then read the following history:

Prof. Chas. A. Budd consulted me, Sept. 24, 1871. He informed that for about a year he had some pain in the back of his right sciatic nerve; that a few months before, whilst crossing the Atlantic, he had wrenched his knee, and that on the morning of the day upon which he called at my office he had discovered a swelling in his right popliteal space.

At that time the Doctor stood six feet one inch in his stocking feet, and weighed one hundred and ninety pounds. He suffered occasionally from attacks of gout; otherwise enjoyed pretty fair health.

I found in his right popliteal space a pulsating tumor, centre of which was on a level with the apex of the patella. My estimate of its transverse diameter was two inches and a half; longitudinal, three inches. Pulsation was readily arrested by compression of the artery as it escapes the crural arch; continuance of such compression also caused entire collapse of tumor; lateral expansion was well marked, and the ear detected an unmistakable bruit.

I placed him upon iodide of potassium, in doses of

sixty grains a day, and used injections, into the immediate vicinity of the tumor, of ergotine. After a few days of this treatment the Doctor became impatient, and demanding something more active, on the 2d of October I commenced the treatment by genu-flexion. This was used continuously night and day for two hundred and seventy hours, with the heel, in the beginning of the treatment, at a distance of eight inches from the nates; at a later period it was approximated to within five inches. The process was a very painful one, and required large doses of McMunn's elixir to make it all endurable. When the flexion had been used one hundred and five hours, evidences of consolidation first presented themselves, in the fact that the tumor no longer collapsed on compressing the artery above, and resembled in feel and size the half of a billiard-ball. After two hundred and sixteen hours I supplemented the flexion with intermittent digital pressure of the artery at the groin.

On the 13th I stopped the flexion, determining, after a few days' rest, to commence the use of compression.

On the evening of the 14th, Prof. Loomis, who had examined the case before the treatment was commenced, made a careful investigation, and stated that the tumor had diminished one-third, that a considerable degree of consolidation had taken place, and that the bruit had very considerably diminished.

Compression was begun on the 21st of October. The instrument used was one devised for the purpose at the time, and described in The Medical Record, April, 1872. Three points of pressure were used; one at the groin, one at three, and another at seven inches below Poupart's ligament. This compression was steadily maintained for fifty-six days, at an average of ten hours and a half a day, making five hundred and eighty-eight hours, complete in all its details. We were not annoyed by any of the accidents that are so frequently associated with compression, such as excoriations, or phlegmonous condition of connective tissue. For a larger portion of this time a just perceptible wave was permitted to pass through the tumor, but later on, when the great fortitude and endurance of the patient began to give out, I used the compression on several days, so that not a pulsation occurred, except when changing points of pressure.

After the first seven days direct compression was used at night by the adjustment of a pad of curled hair, but the indirect compression was used every day, save on one occasion, when some twinges of gout obliged us to desist.

For the last three weeks of this treatment no change occurred in the condition of the tumor. It was apparently diminished two-thirds, solid, without lateral expansion, but feeble pulsation, and scarcely perceptible bruit. Having now determined that there was either some local impediment or something in the plastic condition of the blood that prevented complete obliteration of sac and artery, it was deemed proper to permit the patient to get about. He soon resumed the active duties of his profession, and he never afterwards suffered from any increase in size in the aneurism.

The summer of 1873 was spent in London and Paris. He returned much invigorated, and at once resumed his duties of Professor in the University.

In the summer of 1874, whilst at the Delaware Water-Gap, he began to suffer from intercostal neuralgia, which proved to be of a most intractable character. On the 13th day of February, 1875, I first detected what I regarded to be the signs of aneurism of the thoracic aorta—an area of dulness between the posterior border of the scapula and the spinous processes of the upper dorsal vertebræ, and a bruit with its maximum intensity on a level with the spine of the left scapula.

In 1875 the Professor again visited Europe. During his stay in London he was prostrated by suffering, and received the kind attention of Dr. Morel Mackenzie, who called Dr. Walsh in consultation. The latter gentleman expressed the opinion that he had a large aortic aneurism, that his condition was very critical, and advised his speedy return home.

In 1876 Prof. Budd resigned his position in the University, but continued to attend to his office practice. His sufferings from pressure on the intercostal nerves were of an intensely painful character, and relieved only by the abundant use of hypodermics of morphia. In the beginning of the present year he began to suffer from difficulty in swallowing, and for the three months preceding his death took little else than fluid nourishment.

In the early part of the afternoon of May 17th he began to complain of the old pain returning, and his wife, alarmed at the appearance of lividity which began to overspread his face, summoned assistance. I was absent, but Prof. Alf. Loomis and Dr. Walter Gillette were promply at his bedside, and only in time to witness him breathe his last.

Prof. Loomis, his colleague in the University, had seen him often during his long illness, and I expected that he would have been present on this occasion to aid me in completing the history of the case.

Autopsy was made on the morning of the 18th, in the presence of Profs. Loomis, Arnold, and Dr. Bern Budd.

Left pleural cavity contained about thirty ounces of blood-clot, and about as much serum; the lung was bound to the chest-wall by firm and old adhesions; upper lobe in condition of fibrous induration; lower carnified, compressed; bronchi dilated.

Right lung emphysematous, and in condition of slight hypostatic congestion.

A large aneurism was found, filling more or less of the left chest, and bulging slightly into the right; its anterior wall was strengthened by a large hard coagulum of fibrine that weighed nearly two pounds; the bodies of five vertebræ were eroded, and the second and third dorsal were almost entirely absorbed.

Heart and valves were perfectly sound.

Liver—color normal; left lobe slightly diminished in size; right lobe normal; very slight appearance of waxy change.

Stomach distended; spleen healthy.

Kidneys—small, contracted; capsules slightly adherent; surface granular; section presenting appearance of chronic parenchymatous nephritis.

Right popliteal artery presents an aneurism about two and a half inches in both diameters; the sac is developed from the anterior wall, and communicates with the vessel by a long oval aperture; the cavity is almost entirely filled with a firm organized clot, the deep surface of which is furrowed by a channel that permits the transmission of blood to parts below; the posterior wall of the artery is marked by a large irregular patch of atheroma.

Dr. Briddon did not witness the symptoms immediately preceding his death, but Drs. Gillette and Loomis, who were present, supposed him to be suffering from collapse, the result of anæmic poisoning. On opening the chest, the left pleural sac contained a clot of blood which weighed two pounds, together with a large amount of serum. The lung of that side was carnified, and everywhere adherent. Some of the bronchi were dilated, and there were minute changes in the lung structure, the nature of which he was

unable to determine. There was a large aneurismal sac, involving the thoracic aorta from its commencement at the termination of the arch down as far as the sixth dorsal vertebræ. The larger portion of the sac was on the left side, but it encroached slightly on the right side. The bodies of the first five dorsal vertebræ were eroded, those of the second and third being almost entirely gone. The heart was perfectly sound. There were the remains of a pericarditis which dated back a considerable time. The liver was in some parts undergoing fatty degeneration. The kidneys were small and contracted; the capsules somewhat adhering, favoring the condition of parenchymatous nephritis. All the other viscera were sound.

The popliteal aneurism was developed from the anterior surface of the artery, the sac measuring two inches transversely, and two inches and a half in a longitudinal direction. The sac communicated with the aneurism by a more or less oval aperture nearly two inches in length. The sac itself was almost entirely filled with a firm clot, was furrowed into channels, through which blood had passed during life to the artery below the sac.

Adjourned.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 15 to July 21, 1877.

Simons, J., Lieut.-Col. and Surgeon. Granted leave of absence for twenty days. S. O. 153, A. G. O., July 13, 1877.

Swift, E., Lt.-Col. and Asst. Medical Purveyor. Relieved from duty as Medical Director of this department to enable him to comply with S. O. 147, C. S., A. G. O. G. O. 6, Dept. of the Gulf, July 18, 1877.

Alden, C. H., Major and Surgeon. Telegraphic instructions of 30th ultimo to proceed from Fort Townsend to Lewiston, Idaho, and report at once to the Dept. Commander in the field, confirmed. S. O. 90, Dept. of the Columbia, July 6, 1877.

Matthews, W., Capt. and Asst. Surgeon. To accompany Co. "D," 12th Infy., from Camp Independence, Cal., to Boisé City, Idaho. S. O. 80, Div. of the Pacific and Dept. of California, July 5, 1877.

Dickson, J. M., Capt. and Asst. Surgeon. Granted leave of absence for thirty days, on Surgeon's certificate of disability. S. O. 120, Dept. of the Gulf, July 13, 1877.

Buell, J. W., First Lieut. and Asst. Surgeon. To accompany Cos. "D" and "L," 10th Cavy., ordered from Fort Concho to Fort Clark, for field duty. S. O. 127, Dept. of Texas, July 13, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending July 21, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
July 14.....	1	2	68	1	36	38	1
" 21	0	12	53	1	30	31	1

German University Calendar.—Through the kindness of Dr. Prout, of Brooklyn, we have received a copy of the second part of the *Deutscher Universitäts-Kalender* for the summer term of 1877. This little book, which is published twice a year, gives the names of the professors and tutors, and the subjects of their lectures, in all the German universities, including not only those in the German Empire, but also those in Switzerland and Austria, and that of Dorpat in Russia. The average cost of living in the more important university towns is mentioned. This calendar, of the existence of which most American students are ignorant, contains a great deal of information which would prove valuable to those intending to go abroad to study in the German universities. We have been surprised to learn from it that of the thirty-four universities, Berlin only stands seventh in the number of medical students. Vienna, of course, comes first, and Würzburg is second. The calendar is published by Leonhard Simion in Berlin, and costs about 40 cents gold.

Changes in the Medical Corps of the U. S. Marine Hospital Service.—Dr. A. B. Bancroft, surgeon-in-charge of the Marine Hospital at Boston, Mass., has, after a full hearing, been removed, as recommended by the board of surgeons who lately investigated the management of said hospital. Surgeon Ralph N. Isham, who was in charge of the Marine Hospital at Chicago, has resigned. Assistant surgeon J. B. Hamilton has been promoted to be surgeon, *vice* Dr. Bancroft, removed, and assistant surgeon Truman W. Miller promoted surgeon, *vice* Dr. Ralph. N. Isham, resigned. Doctor Francis H. Brown, of Massachusetts, has been appointed assistant surgeon, *vice* J. B. Hamilton, promoted; and Dr. John Godfrey, of Alabama, appointed, *vice* Dr. Truman W. Miller, to a like position. Those who passed highest before the Medical Examining Board, lately in session, were selected for appointment.

University of the City of New York, Medical Department.—Prof. Jno. T. Darby, of the Medical Department of the University of New York, was elected, June 1st, to fill the vacancy in Bellevue Hospital, recently made by the death of Prof. Charles A. Budd. On July 1st, Prof. Darby was also elected visiting surgeon to the Mt. Sinai Hospital.

Prof. S. W. Thayer.—The honorary degree of LL.D. was recently conferred upon Prof. S. W. Thayer, of Burlington, Vermont, by the University of Vermont.

Small-Pox and Diphtheria in Persia.—Small-pox and diphtheria prevail to an alarming extent in Persia.

Esmarch's Bandage in Amputation.—Esmarch's bandage is less useful in amputation than was anticipated, as the capillary hemorrhage, after the bandage is removed, is oftentimes stubborn and excessive. Hence, many surgeons, at the risk of being out of the fashion, are inclined to fall back upon the old plan with the ordinary tourniquet.

Inorowing Toe-Nail.—Dr. C. G. Clarke, of Indiana (*Med. and Surg. Reporter*), in simple cases of ingrowing toe-nail, advises the scraping of a longitudinal line in the centre of the nail to transparent thinness. This enables the nail to bend and evert the edges. The latter could be much aided by the insertion of cotton under the angle. But this, after all, is an old and simple remedy.

Original Communications.

ON THE TREATMENT OF FRACTURES OF THE THIGH BY MEANS OF A MODIFICATION OF BUCK'S APPARATUS AND AN IMPROVED PLASTER BANDAGE.

By H. A. DUBOIS, M.D.,

SAN RAFAEL, CALIFORNIA.

For the last sixteen years I have used the method of extension introduced by Dr. Gurdon Buck, in quite a large number of cases of simple and compound fractures of the thigh, in civil and military practice, and generally with excellent results. There are, however, certain disadvantages—at least that has been my experience—in the method as now used. Among these I would mention the difficulty of accurate measurement from the anterior superior spinous process of the ilium to the malleoli, the latter being covered by the loop of thick plaster; the difficulty of supporting the foot at right angles to the leg by the ordinary foot-piece, it tending to sink down and thus to bring the strain of the weight obliquely to the axis of the leg, and therefore irregularly on the plaster on either side of the latter. Again, the plaster, as now applied, has its hold on the skin alone, and is apt to cause blistering of the surface, especially over the ankle. Frequently, on visiting a patient in the morning, I have found the weight on the floor, even when a perineal band has been used and the foot of the bed raised, due, of course, to the carelessness of the friends or attendant; but this fact makes it none the less difficult to avoid, in private practice at least. Still another objection that I would name is that the force reducing the fracture is applied almost entirely to the lower fragment, the perineal band being intended alone to keep the body from sinking down towards the foot of the bed. On raising this, the body, of course, acts as a counter-extending force, but, it seems to me, in an irregular manner. Lastly, there is no convenient mode of regulating, night and day, the extending and counter-extending forces. Some time ago, while treating a case of congenital club-foot in a child, in which both feet were extended so as to be nearly in a line with the axis of the leg, and both turned outwards, to avoid the clumsy and expensive modifications of Scarpa's shoe sold by instrument-makers, I made use of the method of extension introduced, I believe, first by Dr. Brainard, of Chicago, and afterwards, but independently, by Barwell, of London. It consists in applying a strip of adhesive plaster spread on canton flannel to the leg lengthwise, laying a thin metal plate on it, and then in turning up the end of the plaster so as to cover the plate, and in applying a close-fitting bandage over all. At the upper third a wire loop is soldered to the plate; this is the *point d'appui* from which the extension is made, which, in cases of club-foot, is by rubber tubes; the attachment on the foot being by wire loops sewed to pieces of plaster shaped so as to apply themselves neatly to the part, and to allow the strain to come in a direction proper to rectify the deformity. In this case two plates and rubber tubes were of course required for each foot, to overcome the double defect. The extension was kept up night and day—in the night, through openings in the stockings, and in the day through holes in the shoes also—for some three months, with the result of a complete cure. What struck me most in this case was that I could put a strain of from five to eight pounds steadily, for a week at a time, on the leg and foot of a child four years old, without causing the slightest irritation of the skin, or any uneasiness, and without disturbing the plasters, and that this could be continued from week to week, over the space of three months. If any one will try laying a piece of bandage lengthwise on the leg, placing a piece of tin on it, folding up the lower end, and applying a bandage around the whole, he will find that when he brings a steady strain to bear upon the lower third of the plate of tin, and parallel, or nearly so, to the leg, that the force will tend to press the plate towards the centre of the leg, its downward action being restrained by the loop of bandage, and the outward tendency of the upper two-thirds by the bandage. When plaster replaces the bandage, the strain will be divided between the overlying bandage, the skin, and the deeper-seated structures. I propose to apply this principle in the treatment of fractures. In order to prevent pressure on the malleoli, and at the same time to leave them uncovered, so that accurate measurements can be made, the loop of plaster, with the included tin plate on either side, should terminate two or more inches above the ankle. To allow the foot to be kept upright, and to prevent pressure on the ankle, I use a thin board the length of the foot, and twice its width; this I attach to the two pieces of tin, one on either side, by wire loops soldered to their lower thirds. (The strips of tin should be 2–3 inches wide, and long enough to reach from a point two inches above the ankle up to the knee-joints. Holes should be made through the overlapping plaster for the wire loops.) This attachment is made with rubber tubing three-eighths of an inch in diameter. The tube on either side should pass through the loop on the tin plate, and its ends should then go through openings in the foot-piece and be wired together.

The lower holes should be about two inches below the axis of the leg, and the upper about the same distance above it, and both near the side of the foot-piece. The tubes, having been thus arranged, are now fastened together by a loop of strong wire. It will be seen that while the foot-piece is movable, and can thus be secured to the foot, the tubes on either side are at their base four inches apart, leaving ample space for the malleoli, and thus avoiding all pressure on the ankle, and allowing of the most accurate measurements, without which it is impossible to treat fractures of the thigh intelligently. In order to make extension I prefer a small spring-balance, though the weight and pulley can be used if desired, but I believe the former in general safer and more convenient. These balances may be had in the stores, about four inches in length, graduated up to twenty-four pounds, and for about fifty cents each. This is secured to the foot of the bed by a hook, or tied by a wire, while the rubber tubes are secured to its other end directly, or, if greater play is desired, by means of a piece of tubing. The counter-extending force consists of a second spring-balance secured to the head of the bed, and attached by its lower end to a piece of tubing a foot or more long, which is connected with the perineal tube by a cord. This should consist of a five-eighths inch tube, which should be filled with water, and the ends tied. It should pass around the thigh, and its ends be secured together a little above the hip, and then connected with the balance by means of the cord above mentioned. If a more perfect pull is desired on the whole of the pelvis, as may sometimes be wished, as in intercapsular fractures and those close to the joint, a longer tube, filled as above, is loosely passed around the hips, and then secured together in

either groin. In this case it should be connected by a cord on either side, and two tubes should also be used to attach it to the counter-extending force, which preferably should also be double. In using this apparatus the bed should be *level*, and the counter-extending balance should indicate at least a pull of one-half of that of the extending balance. These should be firmly attached to the bedstead, while the strain may be increased or diminished by means of the cords connecting the tubes to the balances. The perineal tube, when filled with water, I have found readily borne, even when the strain is considerable. By this modification of an old and well-established method of extension, I think some of the objections that I have mentioned will be done away with, while the trouble and expense are little, if any, more.

The patient can sit up in bed and enjoys a good degree of freedom of motion, owing to the elasticity and length of the rubber tubes, while the spring-balances keep a perfectly even pull, and allow the physician to see exactly the amount of the extending and counter-extending force at any time. I usually apply a plaster-of-Paris bandage by the end of the second week, or so soon as the bones are fairly knit. The only peculiarity about this bandage being in a device for keeping up counter-extension by means of a perineal tube. The plaster bandage is applied as usual, the body being supported on a thick pillow, and the limb by the hands of an assistant, both under extension.

On the outside of the thigh, and extending up an inch or so above the crest of the ilium, and down well on the thigh, a piece of flannel dipped in the plaster is applied, and layers of the bandage over this. A piece of thick tin plate, three inches wide, and long enough to reach, when folded on itself, from the middle of the thigh to three or four inches above the hip, is folded over the perineal tube in such a way as to leave an opening through which the tube can afterwards be passed. Between the folds of the tin a piece of flannel should be secured by stitching. The flannel is now dipped in the plaster and applied on the outside of the thigh, and the plaster bandage over it with a few turns of the roller over all. When the parts are dry, the plaster casing around the hip should be trimmed, and the perineal tube filled with water, secured by passing it through the opening between the folds of tin, and tied at any degree of tension required. I have now a patient out walking on the 27th day after an oblique fracture of the middle third, with only a slight plaster casing over the front of the thigh, and though I have made repeated measurements I can find no perceptible shortening—certainly there is not more than one-sixteenth of an inch, if that, though early in the case I could readily get one and a half inches by relaxing the extension. I would add that as soon as I conceive it safe the plaster bandage is removed by cutting it off from the inside, and the portion covering the thigh only is replaced, and secured by bandages, while the counter-extending force is kept up. With this apparatus I am able to get my patients safely on their legs at a very early period. Doses of ten grains of the lacto-phosphate of lime, three times a day, have also aided, I think, in shortening the time of confinement in bed, by giving rise to an early union. The points that I desire to call attention to, in the above paper, in an especial manner, are as follows: 1st. The use of a measured extending and *counter-extending* force, with a level bed. 2dly. The mode of applying the plaster to the leg, thereby avoiding irritation, distributing the strain over the skin, deeper-seated parts, and overlying bandage, and enabling the surgeon at all times to make accurate measurements. 3dly. The use of a movable foot-piece, connected by elastic tubes to the leg, and which can be firmly fastened to the foot by adhesive plaster, thus always insuring that the latter shall be at right angles to the leg, and the strain thus be brought on the plaster in a direct line, while the malleoli are left uncovered. 4thly. The perineal tube, filled with water, I claim, distributes the pressure more equably than any other counter-extending apparatus in use. Lastly, by the judicious use of the plaster-of-Paris extension, I think a majority of cases can be allowed to take exercise freely with nothing more than a slight plaster casing on the thigh alone, connected with the perineal tube, and worn only during the day, by the end of the fourth week.

In conclusion, I add that I usually find no bandage on the thigh necessary, but for the first three or four days apply a cold-water dressing if there is much swelling, afterwards in rare cases coaptation splints; that I measure the thigh the first week at least once in forty-eight hours, but during the second week every twelve hours, until the bones are firmly knit and the plaster applied. I find a thin hair or a woven wire mattress, placed on a three-quarter iron bedstead, the most convenient for treating all fractures of the lower extremities. The use of the spring-balances instead of the weights and pulleys I consider a matter of convenience only.

In the above article I have made no mention of the yielding of the ligaments of the injured thigh under the force employed in the reduction of the fracture. That the joints do yield in a sound limb I think there can be no doubt of, when a weight of from fifteen to twenty pounds is employed. Doctor Dalton claims that this amounts to half an inch (see *Trans. Med. Soc. of Cal.*, 1874, page 97). But the question is, how much do they give in a fractured limb? He recommends making extension for two hours on both limbs before measuring. It seems to me that a very useful table could be constructed by ascertaining the lengthening of sound limbs under weights. The time of extension, the weight employed, and the weight and age of the patient should be given. By its aid the surgeon would be able to make a proper allowance for the yielding of the ligaments in the fractured limb, and thus obtain cures with less shortening, though I cannot agree with the physician already cited that shortening can thus in all cases be entirely prevented. Captain Allen, an old sea-captain, has invented (see *Trans.*, above cited) a measure something like the shoemaker's rule, which goes over the patient and measures from the crown to the anterior superior spinous processes (by a cross-piece), and extending down between the feet, admits a very accurate measurement by a sort of square applied to the malleoli, while the length is read off on the longitudinal bar. This could, doubtless, be used in hospitals to good advantage, but is not adapted to private practice. If the three measurements—from the superior spinous processes to the malleoli, to the patella, and from the umbilicus to the malleoli in the fractured limb—are slightly greater than in the sound limb, I think we will not be far wrong, and if we apply to these the correction which the table above suggested would enable us to do, *i. e.*, the difference in the yielding of the ligaments between the fractured and sound limb we should approach absolute accuracy.

Mortality Rate.—Munich has at present the highest mortality rate, being 42 per 1,000.

NITRITE OF AMYL IN TINNITUS AURIUM.

By SWAN M. BURNETT, M.D.,

WASHINGTON, D. C.

Any means that offers a hope of relieving tinnitus aurium is deserving of consideration, for it is not only the most annoying symptom of aural disease, but the one that, as a rule, is furthest removed from the influence of our remedial measures. It is true that, in cases of recent catarrh of the middle ear (including the Eustachian tube), we can, in a number of instances, mitigate the severity of the symptom by the judicious use of Politzer's bag and the catheter; but in those cases where the catarrh has become chronic, and particularly if it has assumed the form known as hypertrophic, inflation of the middle ear is seldom followed by marked relief, and even puncture of the membrana tympani, which has of late years been recommended for this form of catarrh, is only occasionally successful.

In those cases where the pathological changes are confined to the nervous apparatus—perceptive or conducting—there is nothing that we can turn to with any assurance of benefit. A remedy adapted to this form of aural disease is a *desideratum*.

Narcotics have been the remedies generally experimented with, and a number have been tried by Tröltsch, Moos, and others, but with no definite result. They have been used internally, and externally by pouring them into the external ear. Electricity, too, for which some hope was raised in the therapeusis of the ear, has failed to give us anything that can be depended on, though there are some instances, one or two of which have fallen under my own observation, where the noises have been notably diminished under its use.

Recently, however, another narcotic has been proposed and tried, which has been found so far useful as to demand a more extended trial, and that is the nitrite of amyl by inhalation. In the last number of the *Archives of Ophthalmology and Otology* (Vol. V., Nos. 3 and 4) Dr. Michael, of Hamburg, reports the results of its use in twenty seven cases of his own, and six in the practice of Dr. Urbantschitsch. Summarily, these results are as follows: greater or less improvement in nineteen cases, as regards the tinnitus, in one or both ears. In five cases the hearing power was considerably improved. The greater part of the cases was of that class known as otitis media hypertrophica; three only were of labyrinthine disease, of which one was improved.

More recently, Weber-Liel, in the *Monatsschrift für Ohrenheilkunde* (March, 1877), has reported some experiments with the agent, in which two cases were benefited. In one the hearing power was improved, but the tinnitus was not; in the other the noises were diminished, but the hearing power remained the same. They were both cases in which there were changes in the middle ear. He gives to Michael the credit of being the first to study the effect of the agent in ear troubles.

A case has recently presented itself in our practice which seemed particularly fitted for a trial of the remedy in respect to its influence on tinnitus. The following is its history in brief:

Mr. B., twenty-nine years of age, had an attack, thirteen years ago, of what his physicians called "brain fever." He vomited exceedingly hard at the commencement of the attack, and even before he lost consciousness was unable to hear anything spoken to him "on account of the great noises in the ears."

After recovery the noises continued, but his hearing power was completely lost. In that condition he came to me on the 17th of April of this year.

An examination showed the absence of any cause for the trouble in either the external or middle ear; the deafness is purely "nervous."

The noises are at times exceedingly troublesome to him, and especially so when he is irritated or worried. He continually translates them into conversations or speeches, or even songs which he had heard before the loss of hearing power. When parties are conversing near him the noises invariably assume the form of the conversation he imagines them to be carrying on.

I gave him, on the 17th, an inhalation of 2 drops of the nitrite of amyl. It was accompanied by the usual symptoms attendant upon its inhalation—flushing of the face, quickened and somewhat irregular pulse, slight injection of the conjunctiva, and dizziness. On the supervention of these symptoms the noises ceased entirely; not a murmur was to be heard. They remained absent for about two hours, when they gradually returned, but not to their former intensity.

On the 19th another inhalation was given. It was repeated on every alternate day until the 1st of May, with a like result. They were then suspended for six days to try the effect, but the noises did not return to their previous intensity, and the inhalations were again begun and continued as before, on alternate days, until the 25th, with no change in the effect of the medicine, except that the duration of the freedom from noise was shortened to about 1½ hours.

The patient, a man of fine intelligence and a close observer, is confident that the noises are very materially diminished. He can no longer get up his imaginary conversations, which had previously been such a source of annoyance to him.

An effect of the inhalation of this agent, that I have not seen noted, was observed in this case, and is worthy of mention. At every inhalation, at the period of flushing of the face, he notices a round bright yellow spot in front of the eyes, which, projected on a white paper at a distance of 30 centimetres from the eye, has a diameter of 3 cm. As the circulatory excitement subsides, this gradually fades out.

This phenomenon, it seems to me, can have only one cause for its production. There must be an overfilling of the vessels in the interior of the eye, resulting from the general disturbance of the vaso-motor system from the action of the narcotic. This overfilling in the vessels of the choroid makes pressure on, and causes an irritation of, the layer of rods and cones in the region of the macula. I say in the region of the macula, because the scotoma was in the line of direct vision. From the known formula $b = \frac{B.\,g''}{g'}$, we can calculate the size of the region of the retina affected. In this formula b = the size of this region, B = the size of the image as projected on the paper = 30 mm. g′ the distance of this projected image from the eye = 30 centimetres or 300 mm. g″ = the distance of the retina from the second nodal point of the eye = 15 mm. Substituting, therefore, we have: $b = \frac{30 \times 15}{300} = 1.5$ mm., or about the size of the optic disc. We judge this vascular pressure to proceed from the choroid, because the blood-supply of the retina at the macula consists of capillaries which, on account of their fineness, could hardly make the pressure requisite to call forth the scotoma.

We have tried the nitrite in another case of im-

paired hearing from nerve affection, which, however, was unaccompanied by tinnitus. In this instance no beneficial action was noted.

The employment of the remedy is purely empirical; we can explain its action only on the ground of its influence on the sympathetic system, and in what manner this action can exert a beneficial effect on the auditory nerve must, in the present state of our knowledge, remain a matter of conjecture. The benefits that have appeared to follow its use, however, justify its further trial, and it is only by an accumulation of cases in which the remedy has been tried that we can arrive at a just knowledge of its value. After we have fully demonstrated its usefulness we can indulge in speculations as regards its *modus operandi*.

1104 F St., June 1, 1877.

A FEW WORDS ON THE PURPLE OF THE RETINA.

By ADOLF ALT, M.D.,

OF TORONTO, CANADA,

LATE RESIDENT AND ASSISTANT SURGEON TO THE NEW YORK OPHTHALMIC AND AURAL INSTITUTE.

Although the important discovery of the purple coloration of the retina during life by *Boll*, and the subsequent experiments of *Kühne* and others during the past few months, have afforded much food for discussion in European medical literature, as yet little seems to have been done in regard to this subject among American scientific men.

After having made some experiments myself, I took occasion to demonstrate the fact before my class of histology of the eye, when lecturing on the normal histology of the retina (on the 5th of May). This demonstration, perhaps, may present some points of general interest. It was done in the presence of Drs. H. Knapp, E. Grüning, and T. R. Pooley.

A small dog, which had been kept in a dark closet for six hours, was killed, and one of his eyes enucleated by the illumination of a small gas flame. I then removed the anterior portion of the eyeball and the vitreous, and everted the posterior part upon my finger. As long as the retina was smoothly applied to the underlying choroid hardly any color could be perceived. As soon, however, as it was drawn up into folds, these showed a faint but unmistakable roseate color. I then exposed the specimen to daylight, and in about one-quarter of a minute the color was transformed into yellow, which remained the same when the specimen was brought back into the dark room.

The other eye showed the same conditions.

The purple was seen also in that part of the retina which lay upon the tapetum.

Since Kühne had advanced the idea that the *pigmented* epithelial layer was the one to produce the purple, I made some more experiments on albinotic rabbits. They gave the same results as to the existence of the purple.

Leuckart (Graefe and Saemisch, II., 2, p. 217) states that the tapetum is covered with an epithelial layer similar to the surrounding *pigmented* epithelium, yet *without* containing *pigment*. In albinotic rabbits again we find a layer of *unpigmented* epithelial cells separating the choroid from the retina.

These experiments would thus clearly demonstrate that it is at least not the *pigment* of the epithelial layer between choroid and retina which produces the purple.

N. B.—In an article (printed in the *Verhandlungen des naturhistorisch-medicinischen Vereins zu Heidelberg*. Carl Winter, 1877), "Zur Photochemie der Netzhaut, von W. Kuehne," page 484, Prof. Kuehne draws from the same facts named in the foregoing paper the same conclusion, that the *pigment* of the epithelial layer cannot be the agent by which the purple of the retina is formed.

Progress of Medical Science.

A New Method of Detecting a Simulated Monocular Amaurosis.—Although we already possess numerous means for determining the existence of monocular amaurosis, the following new and simple diagnostic point, which has been recently pointed out by M. Galezowski, is both interesting and valuable. When the patient is turned towards a strong light, and the healthy eye is closed completely, the pupil of the amaurotic eye dilates. When the light first strikes the healthy eye the pupil contracts, and the pupil of the amaurotic eye contracts sympathetically; but when the healthy eye is closed the pupillary sphincter of the diseased eye relaxes. As a rule, this dilatation of the pupil can be readily seen with the naked eye; the simultaneous and equal contraction of the two pupils is seen to be succeeded by a slow and progressive dilatation of the pupil of the diseased eye, as soon as the healthy eye is closed. The pupil, as a rule, attains a diameter of four and one-half to five millimetres, but in some cases the dilatation is less marked, and can only be distinctly seen by the aid of a lens. It is impossible for malingerers to simulate this sign.—*Gazette Médicale de Paris*, May 26th.

Method of Arresting Hemorrhage after Excision of the Tonsils.—In removing the tonsils with the guillotine it is important to remember that the organs are situated obliquely, like the pillars of the soft palate; more pressure should be made upon the lower than on the upper border of the instrument, and the tonsil will then be readily seized. It is better not to attempt to remove the whole of the organ, for after the removal of a portion the rest will atrophy, and removal of the whole is liable to be followed by dangerous and very obstinate hemorrhage. The hemorrhage may be due to the existence of inflammation at the time of operating, which inflammation also has a tendency to make the substance of the organ friable, so that it will have to be removed in small pieces; hence it is always advisable to defer the operation until the inflammatory stage has passed.

The great danger of hemorrhage, however, lies in the possibility of opening into the rich venous plexus which lies at the bottom of the tonsillar fossa, and which is very easily wounded when the tonsil is removed entire. The hemorrhage from this source is sometimes extremely profuse, and is kept up by the movements of deglutition and spitting. The bleeding is not always primary, hence it is necessary to keep the patients under observation for a time. Sometimes it recurs after it has been once arrested. All the usual methods of checking the bleeding are unreliable, with the exception of direct compression made by the finger of the surgeon. The finger should be introduced into the mouth and applied directly to the wound, while counter-pressure is made from in front. This position must be maintained for several minutes notwithstanding the attacks of suffocation, the efforts at vomiting, and the cough which the method excites. The hemorrhage is generally arrested at the end of two minutes. Dr. Panas, of the Hôpital Lariboisière in Paris, has on three occasions been called on to stop considerable hemorrhages from this cause, and

succeeded in promptly arresting them by this procedure.—*Journal de Méd. et de Chir.*, June, 1877.

The Employment of Catgut to Stop Bleeding from Bones.—Dr. Riedinger, in a paper with the above title, calls attention to the difficulty that is often experienced in checking hemorrhage from the nutrient vessels of the bones after amputations and resections. Cauterization does not always succeed, and the introduction of small tampons of wax is contrary to the principle of antiseptic dressings. He recommends, as a substitute, the introduction of one or more bits of catgut into the vascular canal until it is completely obliterated. This is a method which he has himself employed with success, the hemorrhage being arrested at once. One great advantage of the catgut is that it is completely absorbed from the midst of the tissues, and does not interfere in the least with union by first intention. This has been proved by experiments made on dogs. (See Record, No. 300.)—*Centralblatt für Chirurgie*, No. 16.

Another Case of Poisoning by the So-called "Homœopathic Solution of Camphor."—Mr. Philip Grubb, of Warminster, England, reports the following case: A young gentleman aged eighteen years, reading for Oxford, of fair average health, in whose family no trace of hereditary tendency to epilepsy exists, took for the cure of a cold seven doses of homœopathic camphor between 6.30 A.M. and 12 noon, on April 11th. Each dose, he says, was three drops, but probably he took more than three drops each time. Within five minutes after taking the last dose, without the slightest warning, he had a severe epileptic fit, in which his tongue was badly bitten. Mr. Grubb did not see him during the convulsion, but the description given of it was such as to leave no doubt of its nature. It lasted more than fifteen minutes. After the fit, the patient felt, as he said, "queer," and complained of a peculiar cold sensation on the tongue, extending for about half an inch from the tip. After the immediate effect of the attack passed off, he was put on bromide of potassium, which, however, did not seem to agree with him. He was then ordered nux vomica, liquor potassæ, and infusion of cusparia. On May 7th he was all but well, though not quite what he was before the attack occurred.

The two labels on the bottle of camphor were as follows:

"Saturated Spirit of Camphor, as used by Dr. Rubini. Ten times the strength of the ordinary Spirit of Camphor."

"Concentrated Solution of Camphor. Dose, two or three drops on sugar, every fifteen minutes; less frequently when relieved."—*The British Medical Journal*, May 19th.

On the Excretion of Indican and of Lime in Disease.—Prof. H. Senator, of Berlin, in the course of his investigations on the quantity of indican excreted with the urine in various diseases, was struck with the fact that urine which contained an abnormally high percentage of indican was very frequently, but by no means always, remarkably rich in lime salts. In cases of pulmonary phthisis, for instance, an abnormally large quantity of lime is excreted with the urine, even when but small quantities of food are taken, and in spite of the existence of diarrhœa, and it is in this disease especially that the coexistence of large excretions of lime and indican is most easily demonstrated.

A similar coincidence is very frequently met with in children, in whom, as Dr. Senator has shown, the excretion of indican is very often abnormally large. Next to rachitis he thinks that glandular swellings are most frequently attended by increased excretion of lime salts.

In acute febrile diseases (pneumonia, typhus), the indican and lime salts do not increase *pari passu*, but rather the opposite. The difference is probably in part due to the influence of the diminished supply of food on the lime salts. Pleuritis exsudativa is the only one of these affections in which, notwithstanding the existence of fever, he has noticed an increase in the quantity of lime excreted.—*Centralblatt für Med. Wissenschaften*, June 2d.

Transfusion Successfully Performed in a Child.—At the stated meeting of the *Philadelphia Obstetrical Society* on February 1, Dr. A. H. Smith presented for Dr. Stokes, of Moorestown, N. J., the history of a case of transfusion in a boy nine years of age. The patient was suffering from an attack of typhoid fever, which ran the ordinary course until the middle of the third week. He then began to bleed freely from the nose and gums and to pass blood with his urine. The flow from the nose and gums was stopped by Monsel's solution, but would break out afresh on the slightest provocation. Every passage of urine contained, as nearly as could be judged, from two to five ounces of blood. Numerous petechial spots, varying in size from a silver dime to a half dollar, appeared on the skin. Despite the use of iron, alum, and gallic acid, the hemorrhage continued unabatedly for seven days, when transfusion was determined on. Two and one-half ounces of the father's blood were injected into the median vein of the right arm. The oozing from the nose and gums stopped almost immediately after the operation, and urine passed half an hour afterwards contained neither blood nor albumen. On the second day after the operation the patient was exceedingly prostrated, and there was some bleeding from the nose, which, however, was readily checked by a spray of equal parts of Monsel's solution and water. The improvement was subsequently rapid, and in three weeks the patient was able to go down stairs.

The influence of the operation on the hemorrhages in this case cannot be denied. It is an important point, however, that the urine which was passed half an hour after the operation, and which contained neither blood nor albumen, had been collecting in the bladder for two hours before the operation. The fact that the blood transfused was defibrinated, is of interest in view of the opinion of Lesser (*Boston Medical Journal*, June 26, 1876), that the transfusion of defibrinated blood has no influence in arresting transudation from bleeding surfaces, but is only useful in restoring the nutritive fluid when the drain has been stopped.—*American Journal of Obstetrics*, April, 1877.

Gastrotomy Successfully Performed in a Case of Rupture of the Uterus.—Dr. Hart, of Nieuwer Amstel, in Holland, relates a case of spontaneous rupture of the uterus, in which the patient's life was saved by gastrotomy. She was 37 years old, and was the subject of pelvic contraction. Of three previous labors, the first had been completed naturally after lasting three days; in the second and third the fœtus was extracted with difficulty by forceps. The fourth labor had advanced so far that a segment of the head was engaged in the pelvis, and Dr. Hart was about to use the forceps, when suddenly, while an examination was being made, violent uterine action took place, and considerable hemorrhage occurred from the vagina, after which all pains completely ceased. The fœtus gradually receded, and, after a few minutes,

was out of reach, slight sanguineous discharge continuing. The pulse rose to 100, but remained full.

Nine hours after the rupture took place, gastrotomy was performed, Dr. Hart having been obliged to defer the operation in order to perform craniotomy in another case. The pulse had then risen to 126, and there was severe abdominal pain. The fœtus and placenta were found entirely within the peritoneal cavity, the former lying in a dorso-anterior position. The uterus was firmly contracted. In the supravaginal portion of the cervix, anteriorly, there was a transverse rent, 3 ctm. in length. As no bleeding was taking place, and there was not sufficient room between the rent in the uterus and the bladder, no sutures were employed, but the pelvis was carefully sponged out. Convalescence was uninterrupted, the temperature never rising above 38° C. (100⅖° F.), and the patient was able to go out of doors thirty-three days after the operation.

Dr. Hart contrasts the success of this case with the results in a series of thirteen cases collected by Prof. Lehman. In none of these was gastrotomy performed, but in most the fœtus was extracted by version or the forceps. All the patients died within a few days.—*Nederlandsch Tijdschrift voor Geneeskunde*, 1876, No. 42, and *The Obstetrical Journal of Great Britain and Ireland*, June, 1877.

A Simple Means of Securing the Best Posture for the Leg in a Case of Compound Fracture.—Dr. Banga, of Chicago, has invented a very simple method of securing a fractured leg in a good position. His apparatus consists simply of a smooth board, eight to ten inches wide and long enough to extend from the heel to the popliteal space, and some oblong blocks of wood. The leg having been put up in plaster-of-Paris, as soon as this has hardened, is raised over the board and secured in position at the proper height (from six to eight inches) by two piles of blocks, one beneath the ankle and the other beneath the popliteal region. Three turns of a plaster bandage are taken around the leg above the ankle, and the bandage next carried three times around both leg and board. Another roller is then wound tightly around the parts of the bandage which extend from the leg to the edge of the board, so as to roll it up into round, slender cords, which are finally coated with plaster cream. A bandage is then similarly applied below the knee. When these have hardened completely, the block pillars are taken away, and the limb remains supported on the four slender pillars or stilts.

The advantages claimed for this apparatus are: that it is easy of application, and the material can always be easily obtained; that it renders the dressing of the wound easy for the surgeon and painless for the patient. All parts of the leg can be got at without difficulty, and dressings applied without moving the limb at all. The stilts, though apparently slight, are very strong, and large portions of the bandage can, when necessary, be cut away, without interfering with its usefulness. When desired, extra stilts can be made without difficulty.—*Chicago Medical Journal and Examiner*, June, 1877.

On a New Function of the Liver.—In a series of experiments, most of which were made in connection with Prof. Schiff, of Geneva, Dr. Lautenbach has tied the vena porta of mammals nearly sixty times, and always obtained the same symptoms, viz.: a great tendency to sleep, due to the abolition of both tactile and general sensibility; slow pulse and increased followed by decreased arterial pressure; paresis of the heart-arresting fibres of the pneumogastrics; slow and frequently stertorous respiration; death, without convulsions, in from half an hour to four hours. Ligation of the hepatic veins produced absolutely no symptoms. Dr. Lautenbach believes that the above symptoms were due to the accumulation in the blood of a poison, which, under normal circumstances, is destroyed in the liver. In thirty-four experiments, from one and a half to three cubic centimeters of venous blood, taken from dogs dying from ligature of the vena porta, were injected into the lymph-sacs of the thighs of frogs, and these animals always exhibited symptoms analogous to those following ligature of the vena porta in the higher animals, and almost always died within three hours. The injection of venous blood taken before the ligation never caused these symptoms. It follows from these experiments that the blood of the animal contains a poison, which does not exist to an appreciable extent in the blood under normal circumstances, but accumulates as soon as the vena porta is tied. It was impossible to isolate this poison, on account of its great volatility or destructibility; heating the blood but slightly in a water-bath was frequently sufficient to cause it to lose its poisonous properties.

Now, one drop of nicotine injected into the general circulation will kill even a large dog. Dr. Lautenbach found that in the normal dog the injection of one-half a drop never causes death, but that after the vena porta has been tied, the injection of even one-fifth of a drop is usually rapidly fatal. On the other hand, even two drops of nicotine failed to kill a normal dog, when injected into the intestine or into one of the veins of the portal circulation. One-fifth of a drop injected into the intestine of a frog produced slight symptoms of loss of sensibility, but one-fifth of a drop injected after the extirpation of the liver proved rapidly fatal. He claims that these experiments prove that the poison is destroyed in, or by the instrumentality of the liver. The nicotine lost its extremely poisonous qualities when kept for a time in contact with liver substance that had been removed from the body, but contact with kidney substance had no effect on it.

Hyoscyamia, also, loses its poisonous properties while passing through the liver, or when the liver is macerated with it out of the body. When, however, the kidney or spleen was macerated with hyoscyamia, this poison did not lose any of its virulence. The symptoms caused by hyoscyamia and by the ligation of the vena porta in mammals present a remarkable similarity. *Conia* is another drug the active properties of which are destroyed by the liver. This organ also destroys the active properties of the venom of the cobra snake. Curare, prussic acid, and atropia, on the other hand, are not affected by it.

Extirpation of the liver in frogs produces at first no apparent symptoms, but still it leads to the development of a poison. A few days afterwards, whenever they are placed or rubbed on the back, they croak even more constantly than a frog whose cerebrum has been removed. The same symptom is noticed in frogs poisoned by hyoscyamia. In both instances the symptom is probably due to the influence of the poisons on the brain, to a paralysis of the arresting influence which the cerebrum exerts on the reflex action of the voice.

Dr. Lautenbach closes his paper with the following conclusions, which he believes to be strictly deducible from his experiments:

1. The liver has for one of its functions the office of destroying certain of the organic poisons.

2. A poison is being constantly formed in the system of every animal, which it is the office of the liver to destroy.—*Philadelphia Medical Times*, May 26th.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Reports of Practice and Peculiarities of Treatment.

Leucorrhœa occurring in a girl aged eight years —ascarides eliminated as a cause.

These cases are sometimes very annoying, and an item may not be amiss. The girl had suffered from leucorrhœal discharge during the past three months. It was suspected that it might be due to the presence of pin-worms. Ascarides as a cause was thrown out in the following manner: Injections containing one drachm of the muriate tincture of iron to the pint of water had been thrown into the rectum, and no worms were obtained. The following prescription had been written:

℞ Santonin ..... gr. iij.
Calomel ..... gr. i.
M.

To be taken at night and followed by oleum ricini the next morning. No worms were seen in the discharges, and the conclusion was reached that ascarides was not a cause of the leucorrhœa in the present case. It was maintained that astringent washes were not to be thought of, or used by means of syringes in the ordinary manner, for the instrument was very apt to produce irritation, which would cause more harm than the astringent solution would do good. Thorough cleanliness was insisted upon, and after cleansing the parts, a stream could be directed into the vagina from a small syringe containing a solution of sulphate of zinc of the strength of one drachm to a pint of water. It was remarked that these cases, as a rule, get well after a certain amount of persistence.

Epistaxis—incontinence of urine.

A girl, æt. 14 years, complained of suffering from bleeding at the nose two or three times daily, and from being unable to control her water during sleep. Menstruation had not commenced, nor was it believed that the epistaxis was vicarious. The incontinence was nightly, and the epistaxis almost daily, and had continued for two months. The following remedies were administered: the ergot to control the hemorrhage, the iron to affect the incontinence and support nutrition.

Fluid ext. of ergot (Squibb's) was given in ten-drop doses after meals, and muriate tincture of iron in the same amount also after each meal. The improvement was immediate and marked, for during the first week after commencing treatment hemorrhage occurred only once, and incontinence not at all. During the second week she had no hemorrhage, and wet her bed only once. At the end of that time both remedies were discontinued, and the following ordered as a general tonic:

℞ Quin. sulph. ..... grs. xlviii.
Strychnia sulph.,
Acid. arsenious, āā ..... grs. ss.
Acid. phosphoric dil. ..... ℥ ss.
Syr. ferri superphos. ..... q. s. ad ℥ vi.
M. et S. Teaspoonful three times a day, after meals.

Articular inflammation—cold-water treatment —pyæmic rheumatism—acute articular rheumatism —certain points of distinction between the two conditions, and their treatment.

The patient illustrated the application of cold in the treatment of articular inflammation. Four weeks subsequent to her confinement she was seized with a chill, which was followed by arthritic trouble that had been called articular rheumatism. It was remarked that there was an affection which might be called pyæmic rheumatism, and that it was altogether different from acute articular rheumatism. In what way does it differ? The pyæmic form begins with a severe chill or chilliness, and is characterized by the occurrence of chills, more or less severe, throughout the course of the disease. The temperature is usually exceedingly high at the time of the occurrence of the chill, even higher than when the fever has set in, which soon follows the chill. The patient before us had a chill, fever, some sweating, but not profuse; some of the joints became involved, were hot and swollen and tender; but finally one joint remained affected out of all proportion to the duration of the acute attack in articular rheumatism. That fact was regarded as a feature of pyæmic rheumatism. It settles upon one or two joints in the body, and they will remain inflamed and excessively tender and swollen, although all the other symptoms of the complaint have subsided. If a case of that kind is watched, it will be found that results follow which do not belong to articular rheumatism. It was said that rheumatism did not cripple the joints affected by it, although it might exist for ten or fifteen years. Rheumatism produces violent inflammation without causing much organic change in the parts. With pyæmia it is different, for there will be manifested a tendency to disorganization of the joint, showing itself first in universal inflammation of all the structures, with excessive tenderness out of proportion to symptoms found elsewhere in the body. In articular rheumatism the tenderness is not when the fever has subsided, but it is when the fever is at its height. In the case before us, the joint which remained affected was the ankle. It was enlarged in all directions instead of antero-posteriorly, as in articular rheumatism. Suspecting that the case was one of septic infection of the joint, appearing after confinement, the visiting physician was led to believe, too, that the ordinary rheumatic treatment would not prove of much avail. The patient was placed upon quinine and salicylic acid in moderate doses, and the joint was attacked by the local application of cold in the form of ice. The effect of the ice was immediate and most satisfactory, for within one hour the excessive tenderness had all disappeared. The joint rapidly assumed its natural shape. The patient bore the ice applied directly in contact with the skin, with the exception of thin layers of lint intervening, and the cold was continued for about two weeks. At the expiration of that time the cold became disagreeable, and such applications as had been previously used, iodine, etc., were substituted. The local use of ice in the treatment of acute articular rheumatism was condemned, because the pain is secondary. There is a poison circulating in the blood, and the ice does not affect the cause of the disease. It was believed that the local application of ice in acute rheumatism had a tendency to produce cardiac complications.

Pyæmic rheumatism following abortion.

In the case before us the wrist was the part affected, and the disease yielded at once to the local application of ice. The history was as follows: The patient had been in the hospital about ten days. She had had an abortion, and about ten days subsequently one wrist began to swell and be painful. Her trouble was confined to a single joint. She was treated about

two weeks for rheumatism, but without benefit. There was no history of injury. Another feature which distinguishes these cases from rheumatism was here pointed out, namely: a rheumatic joint can be moved without causing much pain, the pain caused being more in the tissues about the joint than in the joint itself in a majority of cases, whereas in the case under examination, and so with all belonging to that class, the movements of the joint itself gave pain. Poultices and anodyne liniments had been applied without relief, the inflammation in the meantime extending. Ice was at once applied, and the patient had received more benefit from it than from any other application that had been made. As soon as she begins to complain of pain produced by the ice, it should be removed and some form of counter-irritation employed, and for this class of cases nitrate of silver was preferred. A saturated solution was applied to the back of the joint. If vesication was produced, it was said, so much the better, and the vesication from nitrate of silver was to be preferred to anything else, because it was the best for producing subsequent absorption. It was regarded as better than tincture of iodine, because iodine so often failed to produce anything more than dense cuticle. In this case the ice was borne one week. In connection with these cases it was also remarked that for controlling pain in fibrous tissue

BELLADONNA AND STRAMONIUM

ointments were far more serviceable than opium. The following was recommended as an application in

ACUTE ARTICULAR RHEUMATISM.

℞. Hydrate of chloral..... ʒ i.
Salicylic acid..... ʒ ss.
Stramonium ointment..... ℥ i.

SYPHILIS—QUESTION IN THE CASE.

The following history was elicited: There had been a suspicious sore upon the penis; suspected chancre; there was enlargement of glands in the groin upon the left side; the post-occipital glands upon the same side were enlarged, and also the epitrochlear glands of the left arm. The supposed disease was believed by the man to have been contracted seven weeks previously. There was a mucous patch in the mouth, mucous patches upon both tonsils, but there was no eruption. The original lesion upon the penis was a "little pimple," which healed readily while a mild calomel dressing was being used, but there was left a hard lump about the size of a pea. About one week ago he had connection, and the sore had broken out again. It was a question whether the mucous patches had been developed unusually early, or whether the disease had been contracted a longer time ago than was supposed. If contracted longer ago, the patient had not been conscious of having had any initial sore. It was remarked that syphilis might exist for a long time without presenting all the practical marks of the disease.

WANDERING GOUT—THE ALKALIES MOST BENEFICIAL IN TREATMENT—COLCHICUM—ALTERATIVES AND SPECIFICS SHOULD ALWAYS BE ACCOMPANIED BY RESTORATIVES.

It was said that the most serviceable alkalies in the treatment of wandering gout with a tendency to attack the kidneys were potash and magnesia. Of these the potash was regarded as by far the more desirable, and could be administered as liquor potassæ in half-drachm doses three times a day. In larger doses it was thought to be liable to disturb the stomach.

It was also claimed that colchicum should never be administered alone, but should be combined with some restorative, and the one the most useful in combination was quinine. The statement was made in accordance with what was held to be a general law, namely: that specifics and alteratives should never be administered alone, but should be combined with the restorative which acted best with the article employed, in order to prevent unpleasant secondary effects that might be produced by such specific if given independently.

DISINFECTANT AND ANTISEPTIC COUGH MIXTURE.

It was said that disinfectants and antiseptics were always indicated in cough with muco-purulent expectoration, and the following prescription was written:

℞. Potass. iodid..... ʒ i.
Acid. nitric dil..... ʒ iij.
Tr. belladonnæ..... ʒ i.
Acid. salicylic..... ʒ i.
Aq. camph.....ad ℥ iij.

M. et S. Two teaspoonfuls in water, three or four times a day.

LUXATION AT THE HIP-JOINT—EASY AND SUCCESSFUL METHOD OF REDUCTION—COROLLARY.

Place the patient on his back upon the floor; flex the femur upon the abdomen until it is brought at right angles with the pelvis; then, standing astride of the patient, clasp the hands under the legs close up to the thighs and suspend the body; when the body has been raised free from the floor, the sound limb can be so balanced against the leg of the surgeon that the entire weight of the patient's body can be utilized as an extending force upon the dislocated limb, and, assisted perhaps by a trifling rotation, will draw the acetabulum over the head of the bone. In this manner the reduction was effected without the use of any force at all, and it was believed that the principle was applicable to all forms of dislocation at the hip-joint. The theory was that the so-called Y ligament was the obstruction to reduction, and that, when it was most fully relaxed, as it could be by flexing the thigh at right angle with the pelvis, the weight of the body was sufficient to overcome the obstruction and bring the bones into their proper relation. An advantage which the method possessed over all others was that it made the patient *particeps criminis*, and, as a matter of necessity, he became one of the defendants in the suit, in case any one was subsequently disposed to sue for damages.

A Nutshell Coughed up after a Lodgment of over Thirteen Years.—Dr. J. W. Luse, of Clyde, Ohio, writes: "I was called upon to treat a child, son of Geo. and Phœbe McFarlin, of Townsend City, Sandusky Co., Ohio, in February, 1863. The boy was 2 years and 2 months old, and was suffering from an attack of bronchitis, hard breathing, and suffocation. The parents supposed the child to have inhaled a small piece of the shell of a hickory nut. The proper remedies to allay bronchial irritation were administered, with but temporary effect. Other physicians were called from time to time with similar results. The child's life was finally despaired of, as it was supposed the left lobe of his lungs was entirely destroyed. But on Tuesday, June 5, 1877, after a lapse of 13 years, 3 months, and 17 days, he coughed up the piece of the nutshell, which measured very nearly $\frac{7}{16}$ of an inch long, and $\frac{5}{16}$ wide from point to point, in the shape of a cross, and curved lengthways, with rough points."

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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MEDICAL CERTIFICATES.

We are not of those who despair of any good coming out of our medical Israel, but we confess that the signs of the times do not give any brilliant promises for the near future. It would seem that the struggle for precedence, the desire for reputation, and the necessity for each one looking particularly to his own interests, give the hindermost ones very poor chances for escaping their fate. When the question whether a man is to succeed or not in his profession becomes one of simple conscientious adherence to the code of ethics, there is not unfrequently much temptation for the stretching of conscience in favor of the individual rather than the principle. While the letter of the law may be strictly followed, its recognized spirit may be as effectually ignored as if there were no relationship between the two. Hence, we find some of those whom we would gladly consider as our best men constantly resorting to devices which, although not open violations of the constitution, are liable to a very suspicious construction. We are led to make these remarks as bearing more particularly upon a practice, lately very much on the increase, of allowing the publication of medical certificates in the daily papers. We cannot shut our eyes to the fact that this is one of the covert means of medical advertising which should be stopped at once. There is only one way of viewing this matter, and that is, by holding every one to account who allows his name to be thus used. No respectable agent of any drug, liquor, or mineral water would presume to use the name of any medical gentleman, in an advertisement in any daily paper, without the consent of that gentleman. We speak advisedly on this subject, and because we do so we are the more mortified for the necessity of referring to the matter at all. It is legitimate enough for any medical man to give a certificate concerning his experience in the use of any particular medical preparation for the use of his brethren, as they will be able to appreciate it at its full value, and at the worst nothing more can be done than the commission of an indiscretion or the violation of good taste; but the case is very different when an appeal is made to the general public with the opinions of "distinguished physicians." The latter is so plainly an advertisement that the motive of allowing the name to appear is open to the gravest suspicion and the severest criticism. Even if it is claimed that such certificates are made in good faith, we ask if it is professional to recommend to the public any wine, mineral water, or medicine, for indiscriminate use?

In talking with an agent, not long since, in regard to one of these certificates, we were assured that medical men do not object to the widespread publication of their names, but that they frequently offer the use of their names of their own accord. In fact, some have gone so far as to hint in the broadest possible manner that such a publication would be rather desirable than otherwise.

It is well known that there are men who will sign everything that comes along, whether it is a certificate as to the efficacy of a pill, or the hygienic influences of a particular sewing-machine; but these names are not of much value to enterprising advertisers when they can obtain much better men with such little trouble.

AMERICAN DIPLOMAS ABROAD.

It would appear that our English cousins are never to learn what constitutes a true medical diploma in this country. The name American diploma is so constantly associated in their minds with the bogus certificates which are sold by *quasi* institutions here, that it is difficult for them to understand that we have any other legal guaranties for medical education. The facts of this abominable traffic have been brought to the notice of the profession across the water time and time again, and it should be pretty generally understood that the quacks who settle in London, and who claim to be "American" physicians, are no more recognized here than they are there. The profession here has done its best to check the bogus diploma trade, and to a certain extent it has succeeded. It should not be held accountable for what it cannot control; and further, it is hardly fair to class what are really well-educated medical men here with a class whom even our English brethren acknowledge are transparent frauds.

Every little while a new case comes into the London courts under the sensational caption of "Another American Physician in Trouble," and we read the account to find that a "Dr." Hamilton or "Dr." Jones has been guilty of unlawful conduct in assuming a spurious title, etc., etc.; and then, in the course of the comments upon the value of American diplomas and the laxity of requirements for a medical degree,

the usually absurd questions are asked if there be such a recognized medical school in the United States as the Metropolitan Medical College, the School of Medicine of New York, the Medical University of Philadelphia, *et id omne genus*. We protest that we have had enough of this, and think it about time that our critics should inform themselves of the true state of medical affairs in this country before indulging in further remarks.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON PRACTICE OF MEDICINE.

Adjourned Meeting, May 25, 1877.

DR. GOUVERNEUR M. SMITH, CHAIRMAN.

THE TREATMENT OF SCARLET FEVER.

THE subject for discussion being the ordinary complications, the treatment of scarlet fever, and the treatment of the ocular and aural complications,

DR. J. LEWIS SMITH spoke with reference to the ordinary complications as follows: He directed attention first to the *nervous complications*, which, when present, were accompanied by rapid pulse, marked elevation of temperature, and occasional eclampsia, and rendered the cases more than ordinarily grave. The causes of this complication were noted under two heads:

First. Active congestion of the cerebro-spinal axis.

Second. Direct disturbing influence of the specific poison upon the nervous system.

The earlier and milder eclampsia was not usually serious, but the protracted and later eclampsia was exceedingly grave. There was a predominance of blood poisoning as a factor in causing this complication, however early it might appear, but in the early cases it was rarely fatal. Eclampsia occurring in the later stages was usually fatal, and was dependent upon the scarlatinal poison. It had been observed that eclampsia occurring in scarlet fever always proved fatal except when occurring before or just in the beginning of the eruptive stage, but Dr. Smith was of the opinion that by the combined use of the bromides and chloral occasional cases of eclampsia occurring at a later period had been saved. By far the larger proportion, however, of cases with this complication perished, except when it occurred at the initial stage of the disease.

THROAT COMPLICATION OF SCARLET FEVER.

Inflammation commencing in the absorbents and lymphatic glands along the side of the neck, and extending to the connective tissue, which was serious in proportion to the induration and swelling. This complication was produced by the absorbents taking up the poisonous material upon the mucous surface. It was believed to be a less frequent complication since it had become customary to disinfect the fauces as a part of the treatment of scarlet fever, than it was in former times. There had been very much less of that complication in New York during the last five or six years than prior to that date, and it was explained by the use of the local disinfectant treatment. Formerly the sore throat of scarlet fever had been treated largely by means of external applications, but since the internal treatment by means of antiseptic and disinfectant applications had been employed, the cervical cellulitis had been very much less than formerly. In this connection allusion was made to the fact that the type of the disease might change. Scarlet fever changed its type the most frequently of any disease, and diphtheria came next in order. It had been the case that the mortality from scarlet fever had been very much less of late years than formerly, and it might be that it was because the type of the disease had changed rather than due to any improved method of treatment.

The throat complication, cervical cellulitis, etc., produced death in one of three different ways:

1. By producing exhaustion as the result of ulceration, and sloughing and suppuration, with or without hemorrhage.

2. By causing œdema of the larynx, either from pressure directly upon the larynx or upon the pneumogastric nerve.

3. More frequently by retarding the flow of blood from the brain by pressure upon the jugular veins. Such pressure gave rise to congestion of the cranial sinuses, veins, and capillaries of the brain and meninges, and perhaps, as a result, gave rise to transudation of serum.

Dr. Smith was of the opinion that in a certain proportion of cases, in which it was formerly supposed that death had been due to the effects of the scarlatinous poison, it had occurred as the result of pressure upon the jugular veins, produced by the cervical adenitis and cellulitis.

Reference was made to cases in which death was caused by conditions secondary to the pressure produced by an enlarged bronchial gland upon the veins at the point where they converge to form the descending innominata.

DIPHTHERIA AS A COMPLICATION OF SCARLET FEVER.

Diphtheria as a complication of scarlet fever had been of very frequent occurrence in New York, as it would be in any locality where diphtheria had prevailed and scarlet fever made its appearance. This complication occurred as early as the middle or at the close of the first week. In this connection reference was made to the fact that diphtheritic virus might remain in a room for two months and then give rise to the disease; the scarlatinous poison might remain in a room three months and still retain the power of producing the affection.

Scarlet fever invited diphtheria, but diphtheria did not return the compliment.

Sometimes, where the sanitary conditions were apparently good, where there had been no exposure to diphtheria outside of the house, scarlet fever had recurred, became complicated with diphtheria, and then the diphtheria became disassociated from the scarlet fever and appeared as an independent disease.

Dr. Smith referred to illustrative cases; four cases of diphtheria occurring without scarlet fever, the latter disease, however, bringing the diphtheria into the house.

Rheumatism was another complication; more commonly appeared in the joints of the upper extremities; was not usually of much gravity, and did not seem to retard the convalescence of the patient.

Gangrene of the mouth had been observed in a few instances; perhaps no more apt to occur as a complication of scarlet fever than of any other disease which equally prostrated the patient. Enteritis occasionally occurred as a complication; a relaxed condition of bowels was common in cases of malignant scarlatina, but the patients usually did very well when the discharges were controlled.

There was also a liability to the occurrence of se-

rous inflammations independent of kidney disease. Of course in acute Bright's disease there was a marked tendency to the occurrence of serous inflammations, like pericarditis and endocarditis, etc., usually attributed to the effect of the urea circulating in the blood; but when the kidneys did not become specially involved, such tendency to serous inflammation might be developed in connection with scarlet fever.

Nephritis was commonly regarded as a sequel to scarlatina, but Dr. Smith was inclined to regard the kidney disease as a complication, and one of earlier occurrence than physicians usually believed. It was thought that if the urine was examined at each visit it would be found that albumen was present before the eruption had faded away. Physicians, generally, were not in the habit of examining the urine until other symptoms of nephritis, as anasarca, etc., were developed; hence, it was believed that it was a complication of more frequent occurrence than was usually supposed.

GENERAL TREATMENT OF SCARLET FEVER, AND ITS ORDINARY COMPLICATIONS.

Dr. Wm. H. Thomson, in speaking of the general treatment of scarlet fever, and of the ordinary complications, remarked that several years ago, when he had charge of a large number of patients at Quarantine, he had pursued three different courses:

1. To do nothing, except give the patients milk, with or without lime-water, and some placebo for a moral effect.

2. To use carbonate of ammonia freely.

3. To adopt the chlorine treatment, consisting in the use of chlorate of potash and dilute muriate acid.

The diet in all cases was the same, namely, milk.

The complications were treated upon general principles. He was very much impressed in favor of the chlorine treatment in consequence of his experience in the treatment of scarlet fever at that time, extending over a period of time two years in length. In a certain class of cases, he came to regard with favor the treatment by the free use of the carbonate of ammonia. Since that time, his general treatment of scarlet fever had been by means of the chlorine plan. In exceptional cases he employed the carbonate of ammonia, and it was thought with noted benefit. For instance, there were certain cases in which there was marked tension of the pulse; the tension, perhaps, within the first two or three hours, being as high as is found in Bright's disease of the kidney or in gout. Marked tension of the pulse was regarded as characteristic of scarlet fever alone among the eruptive fevers, and was sufficient of itself to excite suspicion regarding the presence of the disease. When that condition was markedly developed, it was believed that there was a greater liability to hemorrhages occurring in the skin in the viscera, perhaps in the serous membranes, and perhaps in the substance of the heart itself. There was a tendency to the production of minute emboli and thromboses of the veins, and it was possible that the carbonate of ammonia might prevent hyperinosis of the blood with especial tendency to deposits of fibrin. But the chlorine treatment had so much the advantage in the statistics over the other plans adopted, that he had continued to employ it up to a certain date, hereafter to be mentioned.

The treatment consisted in the administration of grs. lxxx. of chlorate of potash and ʒ ij. of the dilute muriatic acid every twenty-four hours, largely diluted with water; one quart being the quantity ordinarily used. Lymphatic enlargements complicated but very few cases under that treatment.

Since, he had somewhat modified the plan by the substitution of bromine for chlorine. The reason for the substitution was because bromine belonged to the same series of antiseptics and disinfectants as chlorine, and was far more powerful. The chlorine series acted upon chemical principles, setting oxygen free in the nascent state; hence doubly disinfectant.

The carbolic acid group, salicylic acid, oil of cinnamon, ginger, cloves, of wintergreen especially, all being closely allied, were disinfectants, but were to be chosen in the treatment of suppurative inflammations to prevent decomposition of pus, whether the suppurative inflammation was internal or external.

But against communicable diseases they failed utterly in comparison to the chlorine series. They were regarded as useless in the treatment of diphtheria, cholera, etc., for that reason; whereas chlorine was prompt in its action against cholera and communicable diseases.

Several years ago Dr. Thomson began to treat diphtheria by the use of bromine. His impression was that if we were to obviate the more serious developments of communicable affections, like scarlet fever, diphtheria, etc., it must be done by preventing changes in the blood, which were very closely allied in character in each disease. In bad cases of scarlet fever and in bad cases of diphtheria there was a septic condition of the blood, caused by the decomposition of the albuminous elements, quite analogous to fermentation and putrefaction.

Probably, in the majority of cases of death from scarlet fever, death was due to true septicæmia, rather than to poisoning by the specific agent of the disease. The same was true of diphtheria, bad cases of measles, and of small-pox. It was believed that the blood condition in all these cases was very analogous, and therefore should be treated by the use of antiseptics internally.

Bromine being far more powerful as an antiseptic than chlorine, was used both locally and internally in the treatment of diphtheria. Although the Doctor had not much reason to think that the chlorine treatment had not been as successful as possible perhaps in the treatment of scarlet fever, yet he had, of late, relied upon the use of bromine. Since he had adopted its use he had not seen cases of lymphangitis, and there was a full concurrence in the remarks of Dr. Smith, to the effect that the throat complication, the swelling of the glands about the neck, etc., had been much less frequent since the internal as well as the external use of antiseptics.

So far as general treatment of scarlet fever was concerned, Dr. Thomson placed first and foremost among the indications the internal use of antiseptics belonging to the chlorine class—his own preference being for the bromine, having formerly employed chlorine.

The manner of using the bromine was as follows: Dr. J. Lawrence Smith's solution was employed, consisting first of a saturated solution of bromide of potassium in water, and to ʒ ij. of that ʒ i. of bromine was added very slowly, shaking the bottle constantly while making the combination. It was better to add half of the quantity of bromine first, and then let the bottle stand for an hour or more before the remainder was added. When the bromine was dissolved in that manner, the bottle was to be filled with water until a *four-ounce* mixture was made. The solution thus prepared could be again prepared for administration by combining it with water in any proportion desired.

For internal administration ʒ i. of the solution to ʒ i. of water was used, and of that a teaspoonful was given in a tablespoonful of sweetened water,

p. r. n. The solution should be kept in a dark place. As a local application, equal parts of the solution and glycerine could be employed, or, in serious cases, the solution could be applied clear. The odor of diphtheria was entirely destroyed by the local application of the bromide solution.

Dr. Thomson also thought well of the suggestion made by Dr. Hood, of London, that occasional purges of calomel and jalap should be given; three grains of the former combined with five grains of the latter. The antiseptics could be discontinued until catharsis was produced, and then resumed.

The suddenness of the onset of the disease, and the rapidity with which it affected the cerebrum in certain cases, producing rapid rise in temperature, perhaps to 104°, 105°, or 106° F. or more, led him to advise very strongly the immediate douche of ice-water to the head. Wrap the child in blankets and douche it over the head until the pulse changes its tension. It was believed that there was a strong resemblance in the pulse in these cases to that exhibited in puerperal eclampsia. There was the same indication for relief by the immediate contraction of the twigs of the arterial neck. The steady use of cold water in this manner until the pulse changed its character, when high tension was present, it was believed, would be followed by good results in cases of scarlet fever at any period of the disease. When the temperature reached 104° F. the cold wet pack was recommended, and coupled with the statement that he had never seen any harm follow its use. The cold bath was not recommended; the cold wet pack was believed to be all that was necessary. Take a sheet, wring it from water at the ordinary temperature, wrap the child in it, and over that lay one wrung from ice-water. The prompt manner in which the symptoms had improved under such management had led him to regard the wet pack as one of the great therapeutic resources for that class of cases.

There was a tendency to parenchymatous degeneration of the internal organs, in connection with a high temperature, in scarlet fever, more marked than in typhoid fever. There was a greater tendency to blueness of the surface in a case of scarlet fever, with a temperature of 105° F., than in a case of typhoid fever with a temperature of 108°, 109°, or 110° F. Grave symptoms associated with high temperature, however, were regarded with more favor than grave symptoms without high temperature; for, as a rule, these cases took a more favorable turn. Those cases in which tympanitis, bronchitis, hemorrhagic tendency, constipated condition, and small, rapid pulse were present, with a temperature of nearly 101° F., were to be regarded as much more unfavorable than those in which similar symptoms were present in connection with high temperature.

Dr. Thomson recommended that, from the very commencement of the disease, the body should be oiled over three times a day. One reason was because it was one of the most effectual means of relieving the itching of the skin and the excessive restlessness of the patient, the restlessness being due to irritation of the peripheral nerves, caused by the heat of the skin. Such irritation was relieved more readily by oiling the surface than by sponging with tepid water. Another reason for resorting to the oiling was because it was truly antipyretic—it reduced the temperature. Another reason for its use was because of the close sympathy existing between the skin and kidneys. It was thought that in scarlatina there was present for the time a condition very similar to that developed by varnishing the skin of an animal. In scarlet fever there were two periods in which albumen was found in the urine. It was found in the febrile stage, when it was of no more significance than when found associated with pneumonia. But subsequently an albuminuria was present, invariably at the end of the second week, perhaps not reaching its maximum until the fourth week, which spoke of congestion of the kidneys, and oiling of the surface of the body was one of the best means for relieving that engorgement, because the renal trouble was mainly due to the condition of the skin. The oiling kept the glands of the skin in an active condition.

Another reason for oiling the skin was because it removed the pressure from the subcutaneous vessels, and thereby promoted diaphoresis. With reference to the nephritic complication, no case was to be despaired of in its acute stage, for recoveries from apparently the most desperate conditions had taken place. Reference was made to cases in which suppression of urine had continued for seven and nine days, and yet recovery followed. The measures to be adopted for the relief of the nephritis were: oiling the skin; the hot-water pack; dry cups; wet cups, if necessary; counter-irritation by means of spoons heated in hot water, and applied momentarily over the kidneys; free use of infusion of digitalis; and, after diaphoresis, large injections of warm water. The injections were to be preferred to purgatives, for the reason that the action of the warm water favored the evacuation of water from the bladder. Large injections of warm water, a quart, perhaps, might be used as many as six times a day, and the final success in passing water might come with the last injection. The infusion of digitalis should be given to children in doses very nearly as large as would be required for adults.

TREATMENT OF OCULAR AND AURAL COMPLICATIONS.

Dr. H. D. Noyes remarked, with reference to the ocular and aural complications in scarlet fever, that they might occur early or late in the course of the disease, but usually late, especially with reference to the eye. The mode of origin was in the first place direct; that is, by immediate extension of the inflammation from the skin to the mucous membranes of these organs. That was by far the most frequent mode in which the eye and ear became affected.

Second. They became affected from blood-poisoning, and the blood-poisoning occurring as uræmia, embolism, or pyæmia.

The affection of the ear was most common and occurred at the earliest period, the affection of the eye occurring more commonly at a much later period. In the inflammatory affection of the ear and eye, which occurred simply as the result of an extension of the inflammation to those organs, there was nothing peculiar in the pathological process. The same pathological conditions were found without scarlet fever as occurred in connection with it; but the peculiar and important fact in the scarlet fever cases was that we were dealing with organs whose integrity was essential, and whose power of resistance was greatly impaired in consequence of the general condition of the system. An acute process, under such circumstances, was likely to be much more destructive, simply because the patient was in an unfavorable condition of health. As far as the actual lesions were concerned in the eye complications, there was, more commonly, inflammation of the conjunctiva, of the lids, and of the cornea. There was, however, no special line of treatment for such cases of inflammation, other than that which would be appropriate for the treatment of the same difficulty occurring in children without scarlet fever,

except that we were to take into consideration the general condition of the patient, sustain nutrition, and do what was possible to antidote the poison, and thus facilitate the action of local remedies. Any severe local applications to the eye were always out of place. If nitrate of silver was used it must be only in the weakest solutions—not more than grs. v. to the ℥i. of water, and much more commonly grs. ij. to the ℥i. of water. As a rule astringents of only the simplest kind should be employed, such as alum, etc.; and the sulphate of zinc, and sulphate of copper should be ignored, as they were liable to do mischief. Attention should be especially directed to the cornea, for it rapidly broke down, and became destroyed It was needful, therefore, to use a local anodyne in the form of sulphate of atropia grs. ij. to the ℥i. of water, of which from one to three drops were to be dropped into the eye three times a day; and in addition, the eyes were to be bathed freely with warm water. Such was the usual outline of treatment for affections of the eye in connection with scarlet fever. For the photophobia which might be present a moderate exclusion of light was recommended. The ear trouble more commonly produced disastrous consequences, and was developed in two ways: 1. By extension of the inflammation and giving rise to otitis externa; and 2. By extension from the pharynx up the Eustachian tube, and terminating in otitis interna. The history of otitis interna and otitis externa in connection with scarlet fever was precisely the same as when they occurred without scarlet fever, with the exception that the issues broke down more rapidly. It therefore became needful to make use of warm fomentations, and the warm douche externally, and very carefully to watch the condition of the drum membrane. If upon inspection it appeared sodden and swollen, and showed any signs of an acute process going on inside, it was far better to make an unnecessary puncture of the tympanum than to leave the ulcerative process to complete itself in the natural manner. The puncture did no harm, and the tissues would not be destroyed to anything like the same degree as if the ulcerative action was permitted to complete itself, thus allowing the pus to escape by the natural process.

In the same manner extension of the inflammation might take place into the mastoid cells, and the surgeon should carefully inspect the mastoid process, examine with the finger, and if any tenderness was present should, without hesitation, resort to leeches. If a marked degree of tenderness was present, he should make a free incision over the affected part.

Dr. Noyes did not hesitate to recommend injections through the nostrils in cases which seemed to demand local treatment of the nasal passages, notwithstanding so much had been said concerning the inefficiency and the deleterious results which might follow the use of the nasal douche.

When suppurative action occurred in the middle ear, the pus should be evacuated thoroughly. Sometimes it was necessary to resort to inflation with the Politzer bag in order to accomplish a thorough removal of the pus. In children such inflation was very easy, because all that was necessary was simply to place the tube of the bag in the nostril, shut the nose over it, have the mouth closed, and then simply blow; no water or swallowing being necessary. In that manner secretions could often be driven out from the middle ear better than with the syringe. The syringing should be by a copious stream of water.

When the secretions were removed by the simple douche, very warm water should be employed—99° F., perhaps a little higher. For syringing to be efficient, not less than a two-ounce syringe should be used, having a long, slender nozzle, to which should be attached a simple bit of rubber tubing, to prevent the terminal extremity of the nozzle from doing injury.

The treatment of the aural complication when it became chronic, when perforation of the tympanum had occurred and a chronic discharge existed, it was not thought necessary to dwell upon.

There was another class of cases in which blood poisoning was the cause of the eye complication. The condition was that of neuro-retinitis, due to the Bright's disease incident to scarlet fever. The prognosis in those cases was usually good: sight was usually recovered, partially, at least, and sometimes completely. It usually occurred without marked symptoms, as far as the patient was concerned, saving, perhaps, a certain amount of flashes of light and a certain amount (perhaps very trifling) of dimness of vision. There was no condition of the ear which stood in an analogous relation to that affection of the eye.

Dr. Noyes, noting the value of anointing the skin, suggested the use of borax and glycerine, inasmuch as borax was a powerful solvent of the epidermis. It could be used in the proportion of ℥i. of borax to ℥i. or ℥ij. of glycerine, and perhaps might assist the skin in resuming the proper performance of its function.

Reference was also made to the grayish, membranous exudation, pellicle-like, so frequently seen upon the different mucous surfaces, and called diphtheritic, and the question raised whether it was not really the product of inflammatory action, and not true diphtheritic exudation.

Dr. Thomson remarked that he had frequently seen the same kind of exudation in connection with typhoid fever, and under such circumstances he always expected trouble in the ear.

With reference to the borax solution, he was of the opinion that there was no use for it which would be of special value.

It was well known that desquamation in scarlet fever occurred last about the roots of the nails, and that the scales which fell off had the power of communicating the disease. It might be, therefore, that the strong antiseptic properties of the borax could be made available, hence the propriety of having the patients apply the solution recommended to the hands and feet for that purpose alone, namely, to assist the desquamation, and at the same time destroy the poison existing in the epidermal scales.

Dr. O'Sullivan remarked that he had often succeeded in tracing scarlet fever in the public schools by the condition of the cuticle about the roots of the nails. He further referred to isolation as a means of prevention. Reference was also made to the fact that he had seen many cases in which albumen had not been found in the urine in the later stages of the disease, although regular and frequent examinations were made.

Dr. Hadden referred to the fact that scarlet fever could be communicated by means of cats' fur, and that the disease could be contracted by cats from children. With reference to bromine, he was especially pleased with its action, and had noticed that it did not cause soreness of the lips and mouth, as the chlorine preparations sometimes did.

The Chairman raised the question of prophylaxis, and spoke of the protective influence of bromine in the management of hospital gangrene. Had any one any knowledge of any agent that could reasonably be employed to protect against scarlet fever?

Dr. Thomson remarked, with reference to the use of belladonna as a prophylactic agent against scarlet

fever, that it was one of the oldest of heresies. He did not believe there was any way to prevent the development of communicable diseases when they were fairly introduced into the system; we could only prevent the severity of the development.

Dr. Sell referred to the use of the bisulphite of soda in the treatment of scarlet fever, and also to the combined use of gelseminum and asclepias, given in warm water, to effect diaphoresis in febrile cases.

The Section then adjourned to meet in October.

Correspondence.

SHORTENING IN FRACTURES, AND BILATERAL SYMMETRY.

To the Editor of The Medical Record.

Dear Sir:—I read your editorial on "Shortening in Fractnres" with much interest, and also the few remarks that are reported of the discussion of the subject before the American Medical Association.

There is to my mind one all-important point bearing upon this matter which I think has not received due attention, and that is the question of bilateral symmetry as to length in those who have never been injured.

I wrote some remarks upon "Measuring," which are published in the *Medical Times* of this city, Jan. 16, 1875, for the express purpose of calling attention to the then forthcoming paper of Dr. W. C. Cox (see *Am. Journal Med. Sciences*, April, 1875, p. 438). Dr. Cox gives the measurements of both sides of 54 *uninjured persons, and the differences range from 0 to ¼ of an inch*, exact symmetry only existing in six persons. Sir James Paget, after reading my remarks, wrote me in substance that he had long since abandoned the use of the tape and relied upon the eye, thus practically recognizing the fact that the thing to do was to bring the patient into proper relations with himself as it were, instead of trying to mould him to a mathematical standard.

A Long Island Hospital surgeon, I think, has also taken up this subject and confirms the statements made. Some time ago I wrote to Washington hoping to get the army and navy authorities to take the matter up. They have published a vast deal upon anthropometry, but nothing that I can find in this particular direction. I hope that they will take it up, for its importance in a medico-legal view, I think, cannot be exaggerated.

Very truly,

William Hunt.

1,300 Spruce St., Phila., July 5, 1877.

New Instruments.

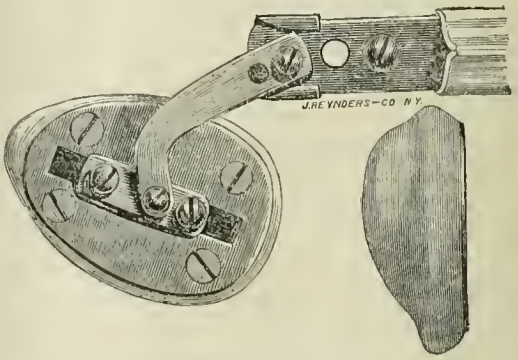
A NEW TRUSS FOR FEMORAL HERNIA.

By W. B. De GARMO, M.D.

Those of the profession who have had experience in the treatment of femoral hernia appreciate the many difficulties attending such an undertaking, and are aware that it is almost impossible to select from the many trusses one which will retain hernia of this character fully and with any degree of comfort.

In constructing trusses for femoral hernia, the prevailing idea seems to have been to make the pad large enough to keep the hernia out of sight, and this, in fact, is about all they do, except to make undue pressure upon the vessels and nerves of this region; they are exceedingly uncomfortable to wear, move from their place easily, and fail in most instances to retain the hernia perfectly.

In devising the truss represented in the accompanying cut I have endeavored to rectify the faults mentioned. The form of spring which I have found most convenient and successful is that known as the English pattern, which passes around the hip opposite the affected side. To the end of this is attached a movable curved arm, as shown in the cut: the movements of the latter upwards and downwards are limited by the clasp partially surrounding the main spring. To the larger end of this arm is attached a thin bar of steel, which carries two screws, with nuts beneath the plate on the hernial pad; the nuts move easily in a groove beneath the plate, even under strong pressure.



The pad differs in shape from those in ordinary use. Its size is only one-third larger than represented in the cut: two thirds of its inner surface is thin and flat, the remaining one-third being quite prominent.

It is designed that the flat surface shall rest over Poupart's ligament, and the prominent portion pass immediately beneath. In this position the pad is securely held, and the hernia is completely retained without discomfort to the patient.

The advantages claimed for this truss over all others are:

First. Safety. It holds the hernia more secure, and with proportionately less pressure than ordinary trusses.

Second. Comfort. The combination which attaches the pad to the spring, allows a relative change in position of the latter in sitting or stooping, without displacing the former or crowding it against and compressing the femoral vessels.

Third. Ease in fitting. Every part can be shaped to suit individual peculiarities in form, after which it is perfectly self-adjusting.

114 East Twenty-fourth St., June 6, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 22 to July 28, 1877.

Kinsman, J. H., Captain and Ass't Surgeon. Leave of absence extended one month. S. O. 165, Division of the Atlantic, July 26, 1877.

Matthews, W. C., Captain and Ass't Surgeon. To proceed to-morrow to Boise City, Idaho, and join Major Greene's command with the least possible delay. S. O. 88, Division of the Pacific and Department of California, July 17, 1877.

Buell, J. W., 1st Lieut. and Ass't Surgeon. So much of par. 5, S. O. 127, C. S., from these headquarters as directs him to accompany Companies D and L, 10th Cavalry, to Fort Clark, is revoked. S. O. 129, Department of Texas, July 16, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending July 28, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
July 21.....	0	12	53	1	30	31	1
" 28	1	13	43	4	36	28	0

THE TREATMENT OF CLUB-FOOT AND A SUIT FOR MALPRACTICE.—The case of Joseph W. Harriman *vs.* Eugene F. Sanger, was lately tried in the Supreme Court of the State of Maine. The plaintiff, a bright intelligent boy of seven years, had talipes equino-varus, and was operated on by Dr. Sanger on May 22, 1871, the tendo achillis being divided in the usual manner, and the modified scarpa-shoe adjusted. The subsequent treatment consisted in directions given to the mother, adjusting other shoes, constructed in Bangor, under direction of defendant, etc. As the parents were unable to pay for the proper appliances, and, indeed, did not compensate the doctor for his services in any way, the visits were discontinued. Dr. Sanger, however, generously paid for the scarpa-shoes and other appliances out of his own pocket, and made several visits gratis. Notwithstanding all this, the plaintiff, who sues by his "next friend," his father, E. K. Harriman, a shoemaker by trade, and also suffering from distorted feet, claims from defendant the sum of seven thousand dollars ($7,000) for malpractice in not using the ordinary skill when operating, and subsequently neglecting to take proper care of the patient's feet.

The chief point made by plaintiff's counsel was, that the defendant should have followed and recognized the theory and practice of Dr. Lewis A. Sayre, Professor of Orthopædic Surgery in the Bellevue Hospital Medical College, New York.

Now, Dr. Sayre certainly differs from other specialists in many particulars. He believes that in all cases of congenital talipes the muscles on the side of the foot, opposite to the side towards which the foot is distorted, are paralyzed, and the foot is distorted by the opposing muscles contracting with only their normal degree of force, and that all such cases can be cured without resorting to tenotomy, healthy action being restored by friction, electricity, etc. An improved shoe, with ball and socket joint, was produced, and it was claimed that the surgeon should have used it instead of the other shoes, which only gave lateral motion. Complaint was also made that even if it was necessary to divide the tendon, it should have been done without severing the theca, and that the operation should have been performed without spilling any blood, or, at most, but a drop or two, whereas in this case much blood was lost.

Many experts were called from various parts of the State, who testified that it is beneficial, and in many cases absolutely necessay, to cut tendons. Doctors Hill, of Augusta, Tewksbury, of Portland, and Robinson, of Norridgewock, fully sustained the defendant's treatment of the case, and they, with other surgeons, asserted that benefit has resulted from this particular operation, and that a small loss of blood is not injurious, and, in fact, immaterial. No one of the surgeons called claimed to have sufficient skill to cut the tendon without severing the theca, and while some would not cut the theca if it could be avoided, others regarded it as immaterial whether it was cut or not, nor did they regard any pattern of shoe as indispensable.

Dr. Laughton, for the plaintiff, testified that he had operated four times, but had never seen three of the patients afterwards, and the fourth he visited only three or four times. He cut the tendons in every instance, and applied shoes with worsted tape for extension.

Dr. Seavey, for plaintiff, stated that he had never operated or used any kind of shoe; still, he favored Dr. Sayre's theory and shoe.

Dr. Jewell, who was present at the operation, says that defendant spilled no more blood than was usual in such cases.

Upon the point of want of ordinary care or neglect on the part of the defendant, most of the surgeons testified that when the operation had been performed, the foot adjusted in the shoe, and proper directions given to the nurse or person having care of the child, and everything seems to be doing well, it is not gross neglect on the part of the surgeon to discontinue his visits until sent for. The defendant testified that he visited the child on the 23d of May, the day after the operation, and adjusted the shoes, and that he called on the 4th, 11th, and 17th of June, and found everything doing well; that there was no neglect of the case up to the time that he left it, and that he discontinued his visits because the parents would not pay for what was necessary in the case. In short, that the present condition of plaintiff's feet is chargeable to the neglect of the parents and not of the surgeon. The jury returned a verdict for the defendant.

As there are many surgeons, both in the United States and in Europe, who differ materially in the treatment of club-foot, the argument of plaintiff's counsel stands for naught. According to Stromeyer, the rationale of the operation is as follows: The tendon being divided, its separated extremities heal by a new connective tissue, which renders it longer, and which, while recent, may be stretched to any desired length. The antagonist muscles, already wasted and inert, are relieved from a constant state of tension, and are enabled to resume their natural functions. This practice is followed by many eminent surgeons, some of whom, in a case like plaintiff's, might even divide the tendons of the tibialis posticus, tibialis anticus, and flexor longus digitorum.

On the second point made by counsel, we cannot see how defendant has neglected to take proper care of plaintiff's feet. He testified that he used all due diligence in attending to patient after the operation, not only visiting him on the 23d of May, 4th, 11th, and 17th of June, but even performing a work of supererogation in paying for the necessary appliances out of his own pocket, the scarpa-shoe alone costing ten dollars and sixty cents. The non-recovery of the patient was certainly due, not to want of skill in operating or subsequent neglect by the surgeon, but to the neglect of the parents, or, rather, to their parsimony in refusing to pay for the necessary apparatus and physician's fees.

NINETEENTH ANNUAL REPORT OF THE WASHINGTONIAN HOME, BOSTON, MASS.—In the summer of 1857 a small number of gentlemen, after consultation, formed the nucleus of a Home for Inebriates, and appointed a list of officers. Dr. Day was elected superintendent, and in May, 1858, he made an elaborate report, in which the principles were enunciated on which the institution has been conducted. The whole number of patients treated from the inception of the Home up to April, 1877, has been 5,233, and it is estimated

that more than fifty per cent. of the number admitted are permanently cured. This is very gratifying to the managers, for there are few if any institutions in the world which can show such a record. The man or woman who seeks an inebriate asylum is not the occasional drunkard, or even the inveterate tippler, but generally a person whose moral and physical natures are almost a total wreck, whose appetite for intoxicants cannot be restrained by the appeals of family or friends, and who is totally lost to any sense of moral responsibility. Under the rules, those placing themselves under the care of the Home are considered patients who have submitted themselves for medical treatment. They are under the orders of the Superintendent, and must not leave the building without his consent. All the moral and hygienic appliances at command are employed for the benefit of the patient, who must abstain entirely from the use of intoxicants of every nature. The Washingtonian Home is an elegant building of four stories, situated on Waltham Street, and having a frontage of eighty-two feet. It is heated by steam, has a hospital and chapel, and is fireproof throughout. Nothing that might conduce to the health or general welfare of the inmates has been omitted, the entire building being fitted up in a neat and substantial manner, and every possible improvement introduced.

Empyema and Incision of the Chest.—Dr. J. H. Pooley, Sr., of Dobbs' Ferry, N. Y., writes: "As the treatment of empyema by aspiration and incision is now earnestly engaging the attention of the profession, the following case may prove interesting to some of your readers. About four months ago I was called in consultation to see a boy about six years old, who had been suffering from a severe attack of pleuro-pneumonia When I first saw him he had not been able to lie down for several days and nights. He was supported on his mother's lap, had entire loss of appetite, great dyspnœa, rapid pulse, high temperature, and hectic fever—in short, was almost moribund. I diagnosed considerable fluid in the left side of the chest—probably purulent—compressing the lung, and pushing the heart to the opposite side. I proposed making a free incision in the intercostal space, where there was some redness and fulness of the integument. The attending physician and parents wished me to do what I thought best, as it seemed impossible for him to live much longer in such a condition. I directly cut between the ribs below the nipple, and evacuated nearly two pints of purulent fluid. His most distressing symptoms were soon relieved; he lay down that night and rested tolerably well. He was ordered quinine and iron, every six hours, with nutritious diet, beef-tea and milk-punch; soon after, cod-liver oil, and made a rapid recovery. The discharge continued for five or six days, when the wound healed. The expansion of the lung took place gradually, and he is now in good health, showing only a scar on his side and a slight retraction of his chest. Perhaps we cannot often meet with such a favorable result, but it certainly ought to encourage us to repeat this plan of treatment."

Death from Chloroform.—A death from chloroform occurred at Mercer's Hospital, London, June 25th. The patient was an intemperate man, a waiter and billiard marker, aged 27 years. The occasion for the administration of the anæsthetic was the firing of the knee joint for synovitis. Accordingly, on the morning of the 25th, after having given the man, who was rather nervous and excited, an ounce of undiluted whiskey, chloroform was administered by the experienced chloroformist to the hospital (the apothecary), by means of a Skinner's inhaler. Very soon the patient began to struggle, and within three minutes was under the influence of the anæsthetic. Almost simultaneously, and before any operative steps were taken, a peculiar change in the man's expression was noticed; the face became livid, and at the same moment it was reported that the pulse had become very weak, and then that it had stopped. The tongue was immediately drawn forward, the face and chest slapped with wet towels, a simulating enema given, and nitrite of amyl held to the nostrils, etc. Artificial respiration by Sylvester's method was at once commenced, and vigorously carried on for an hour and fifty minutes; but, although a few gasps and inarticulate sounds occurred, no sign of returning life appeared to reward the persevering efforts which were had recourse to for his restoration. An inquest was held on Wednesday; and the jury, having heard the medical evidence, returned a verdict that the deceased "died whilst under the influence of chloroform, in consequence of fatty disease of the heart." The *post-mortem* examination revealed an advanced stage of fatty deposition upon, and degeneration of, an enlarged heart. There was also a layer of fat on the pericardium, and old pericardial adhesions. The walls of the heart were pale and flabby; that of the right ventricle was thinner than normal. The cavities were dilated and empty. The valves were perfectly healthy, but the aorta was atheromatous. The lungs were extremely congested, and the base of the right hepatized and bound down by firm adhesions. The apices of both contained numerous nodules of caseous matter, which in several places had softened into small vomicæ. The liver, kidneys, and spleen were enlarged and congested. There was chronic gastritis and inflammation of the mucous membrane of the ileum. The coroner and jury and the legal adviser of the deceased widow expressed their opinion that the chloroform was properly administered, and that no blame was in any way attributable to any of the staff of the hospital.

The Dangers of Ether.—It has always seemed to us the height of folly to declare there could be no danger in any anæsthetic. The lesson taught by the late death from nitrous oxide has, it is to be hoped, been well learned, and we shall in future hear less of the absolute safety of any agent capable of depriving a person of all sensation. Some cases in which ether has been followed by alarming symptoms have lately been recorded. They have been termed syncope, but the word is not appropriate, as the heart continued to beat after respiration ceased. This is what should have been anticipated. When death is produced by ether the animal's heart continues to beat long after the arrest of respiration. The pulse is quickened by ether and maintains its force through a long state of anæsthesia. In these facts lies the safety of ether. But it should never be forgotten that there is danger at a certain stage, and the danger is from the side of the respiration, which at length ceases. Stertorous breathing proceeds from paresis of the muscles of the palate, and should lead to the ether being suspended. So respiration growing more and more shallow and less frequent is a warning, and should not be overlooked. It is very rare that the heart fails—perhaps never. Pallor is rare, too, and should excite attention if it occur. But, we repeat, the danger of ether is from the side of respiration, that of chloroform from the heart, and this fact goes far to explain their relative safety. In chloroform narcosis the danger is much more sudden. Ether gives warning.—*The Doctor* (London)

Original Lectures.

CLINICAL LECTURE.

By ALFRED L. LOOMIS, M.D.,

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(Reported for THE MEDICAL RECORD.)

PLEURISY—FIBROUS INDURATION OF THE LUNG—BRONCHIAL DILATATION—BRONCHIAL HEMORRHAGE.

GENTLEMEN:—The case which I shall first present has the following history: The patient, a shoemaker by trade, is 48 years of age; has a good family history, and has always been temperate. Eight years ago he suffered from an attack of pleurisy, which lasted nine weeks, when recovery seemed complete, with the exception of some pain in the side, which gave him some inconvenience, but was not so severe as to prevent him from pursuing his accustomed avocation. Two years ago he began to be troubled with a short cough, and one morning, after a severe fit of coughing, vomited about a pint of blood, but does not recollect whether it was of a dark red or of a bright red color. After vomiting the blood the pain in the side was relieved, but he became more feeble than before, lost flesh and strength, and began to expectorate considerable quantities of whitish "phlegm," especially in the morning. His cough became somewhat paroxysmal, and frequently continued until vomiting occurred, when, for a time, he was relieved. During the last two years he has suffered somewhat from shortness of breath.

Comments.—From the history of this case we might be led to infer that this man, nine years ago, suffered from an attack of subacute pleurisy from which he made a fair recovery, but from that date fibrous induration of the lung commenced, and as a consequence contraction of the chest-walls and retraction of lung-tissue has taken place, with probable dilatation of the bronchi upon the affected side. In other words, from the history I should be inclined to regard the case as one of fibrous phthisis; and if it shall prove to be such, upon farther examination, it will be especially interesting to us, for we do not often have the opportunity at a college clinic to see cases showing a phthisical development which had its commencement in a pleurisy. I have, however, frequently directed your attention to the fact that there is danger that phthisis may follow subacute pleurisy. Whether our suspicion is correct or not, can only be determined by a

PHYSICAL EXAMINATION.

From the appearance of the chest I should imagine that some portions of the lungs are emphysematous; there is sufficient of the barrel-like expansion to warrant such a suspicion. Again, you will notice that there is a prominence of the left side as compared with the right, which is due either to bulging of that side or to retraction of the right side, perhaps to the two causes combined.

As the patient takes a full inspiration it will be noticed that the left scapula moves considerably more freely than the right. Anteriorly there is a falling in of the chest-wall in the infra-clavicular region upon the right side, and upon full inspiration there is less motion than in the corresponding region upon the left side. Vocal fremitus is more marked upon the right than upon the left side, and is markedly increased as we reach the upper portion of the right lung.

Emphysematous percussion is distinct over the left lung, anteriorly and posteriorly, and more marked above than below. There is marked dulness at the upper portion of the right lung, both anteriorly and posteriorly, the percussion note having a "wooden" character, so-called, and indicates a thickening of the pleura, with perhaps fibrous induration of the lung beneath.

There is dulness upon percussion at the lower portion of the lung, but it is much less marked than above.

Comments.—The exaggerated resonance upon the left side shows that the left lung is doing the major part of the work in respiration, and the distention has occurred as the result of the increased labor. We have then, in this case, a marked retraction of the chest-wall upon the right side, which indicates pleurisy; but the fact that there is increased vocal fremitus upon the same side tells us of something more than pleurisy, and is evidence of consolidation of lung-tissue—in this case due, probably, to fibrous induration of the lung. If there was pleuritic thickening only, the vocal fremitus would be diminished, whereas with lung consolidation it is increased, and that is the manner in which we step from retraction of the side due to pleurisy, to retraction of the side following consolidation and retraction of the lung.

On auscultation.—There is heard in the right infra-clavicular region a tubular breathing, amphoric in quality. Below, there is pure bronchial breathing, with absence of vesicular respiration except at the end of a full inspiration, when it can be heard, but is rude in character. There are no friction-sounds in front, either above or below.

The same sounds are heard behind as in front, and there are no evidences of fluid in the pleural cavity.

Over the left lung, besides the ordinary auscultatory signs of pulmonary emphysema, there is heard a kind of crumpling sound; it is not exactly like a pleuritic friction-sound, but has a peculiar crumpling character, heard at the end of inspiration, and is characteristic of interlobular emphysema. There is a diffused apex-beat, a distinct epigastric pulsation, but no cardiac murmur.

[The auscultatory signs were given by students and corrected or corroborated by the professor.]

Comments.—From these physical signs we conclude that this patient has fibrous induration of the lung-tissue at the upper portion of the right lung, with dilated bronchus, and also slight consolidation of lung-tissue throughout the lower portion of the same lung; at least sufficient to give rise to bronchial character of respiration. This man, eight years ago, had a pleurisy, and the result was adhesion of the lung to the chest-wall, and as the result of such adhesion the free play of the lung was interfered with, its expansion was limited, and as the result of that, dilatation of the bronchial tubes has taken place. The dilatation of the bronchi is secondary to the pleurisy and fibrous induration of the pulmonary tissue. Under such circumstances, when undue exercise throws an increased quantity of blood into the lungs, bronchial hemorrhage is quite likely to occur. Such hemorrhages are of rather frequent occurrence, and are due to what Niemeyer has called collateral fluxion; that is, there is more blood thrown into the lungs than can be returned by the other side of the heart, and pulmonary hemorrhage is the result. Under such circumstances hemorrhage from the bronchial membrane is rather the rule than the exception, for the bronchial mucous membrane is very commonly weakened, and often ulcerated, when dilatation of the tube has taken place, and the vessels are liable to give way when there is,

from any cause, an over-accumulation of blood in the lungs.

Prognosis in this case is not the worst possible for phthisis; and although recovery is doubtless out of the question, yet it is possible that the patient's condition can be very much improved. If he could be placed in an atmosphere in which he would be obliged to breathe but little, such as is afforded in Colorado, the atmosphere of a high altitude, he would get along very well. These are the cases which are specially benefited by such a change of climate; such a change as a transfer from New York to Colorado will afford. Any *treatment* further than that will probably benefit him but very little. As a matter of course, it is proper to sustain nutrition, and carry it to the highest possible degree. If he remain here the final result in the case is only a question of time, and when it shall be reached depends materially upon the amount of exposure to which he is subjected, and the condition of his digestive apparatus.

As a matter of routine he may take cod-liver oil if it agrees with him, although it does not usually benefit this class of cases. Arsenic, strychnia, and iron are the remedies upon which I should place most reliance, and believe them to be the most serviceable of any which can be employed. The arsenic is most advantageously combined with iron. I should, however, expect little present benefit unless from a change of climate.

CASE II. GASEOUS DISTENTION OF THE STOMACH—CIRRHOSIS OF THE LIVER.

The history of this case is as follows: The patient is 35 years of age, a well-built and powerful man, and complains simply of an uneasy sensation and a sense of fulness in the region of the stomach. He has vomited occasionally, but has never vomited blood, nor has he passed blood by the bowels. He has been addicted to the use of alcoholic drinks for several years: gets drunk occasionally, and *takes his liquor* "straight." As the abdomen is exposed you will notice while the man is in the standing position that there is a swelling in the region of the stomach. When the patient lies down, however, this distention entirely disappears. No tumor can be felt, there is no dulness upon percussion, but on the contrary there is marked tympanitic resonance over the region of the stomach as well as over the entire abdomen. Percussion over the region of the liver reveals the fact that the arc of normal hepatic dulness is very much diminished.

Comments.—The fact that this man has been a drinker of alcohol for a long time, that he has gaseous distention of the stomach and bowels, and that there is marked diminution in the size of the liver, leads us to the conclusion that he has cirrhosis of the liver, and that the symptoms of which he complains are dependent upon gastric catarrh. Such a distention of the stomach and intestines is perhaps the earliest symptoms of cirrhosis of the liver; it appears before vomiting of blood, hemorrhage from the bowels, before any noticeable change in the size of the organ; indeed, before any of the usual symptoms of that affection.

Treatment.—The only thing to be done, as far as the liver is concerned, in the way of treatment, is to stop taking alcohol. For the gastric catarrh, after stopping the use of alcohol, it is important to regulate the diet, being careful that only so much food is taken as can be retained, and of such kind as will be least liable to offend the stomach. Such a regulation of diet must be rigidly adhered to if the gastric catarrh is to be controlled. If the patient is willing to submit to the rigid rules required with reference to diet and abstaining from the use of alcohol, improvement may be expected.

As soon as food can be received without being rejected, there is nothing which is so effectual in correcting this gaseous distention of the stomach and intestines as nux vomica. A prescription which I very commonly employ in these cases of rum stomach consists of equal parts of the compound tincture of gentian and columbo, with from five to fifteen drops of the tincture of nux vomica in each dose, and taken before meals. An occasional aloetic and mercurial purge will also be beneficial.

VALVULAR LESION OF THE HEART.

The case before us has the following history: The man is thirty years of age, and says that he comes here because he has disease of the heart. When asked why he thinks he has disease of the heart, he replies by saying: "Because he feels a pulsation in the region of the heart;" in other words, he has been conscious of having had a heart during the last twelve years. Twelve years ago, or a little more, he had his first attack of acute articular rheumatism, and was sick in bed three or four months. He has had seven or eight attacks since, and each one has lasted for some time, one continuing for over six months before there was any marked improvement.

The first thing that attracted the patient's attention towards his heart was the palpitation, or "pulsation," and it became so annoying that it interfered with his work. When he turned around quickly a "kind of dizziness" came over him. He has been steadily growing worse with reference to these symptoms, but more particularly during the last two years. Of late there has been increased disturbance of the action of the heart, and he has suffered from vertigo more than usual. He knows of no special reason why his symptoms should have increased particularly during the last two years, unless it was due to the fact of his having had an attack of rheumatism about two years ago. Within this time, however, he has had "chills and fever," and, while sick, his heart troubled him very much, and has continued to trouble him more than before since that attack, especially on going upstairs. He has had swelling of both feet, the œdema, however, extending no higher than the ankles. He has not had any disturbance of the stomach; no disturbance of vision, except transient and in connection with the vertigo; and has never had cough and expectoration. His pulse is regular, and has a slightly jerking character.

Comments.—From the history of the case alone, it is quite probable that this man has organic lesion affecting the aortic valves. The reasons for suspecting that condition are, that he has had frequent attacks of vertigo, which rarely accompanies mitral lesion. This symptom almost always accompanies aortic lesion when there is considerable hypertrophy of the left ventricle. Again, he has not had cough and expectoration, a fact which points to aortic rather than mitral lesion. For, a mitral lesion continuing twelve years, without some evidence of bronchitis, would be rare. One good reason for suspecting that it might be a mitral lesion, is the fact that it was developed while young. His pulse is not characteristic of either aortic or mitral disease. So far then as the history can assist us, it favors aortic lesion, and we will now determine by physical examination whether our suspicion is well founded.

Physical Examination.—On *inspection*, it will be seen that his countenance does not indicate a very

great deal of suffering. It will also be noticed that there is an increased area of the apex beat, and that it is carried to the left and as high as the fourth rib; there is also a slight pulsation of the carotids. Upon *palpation*, it is found that the cardiac impulse is more forcible than normal.

On *percussion* it is found that the area of normal cardiac dulness is much increased. From the fact that there is an increased area of apex beat, from the fact that it is carried considerably to the left, and that the cardiac impulse is more forcible than normal, and that there is increased area of dulness in the precordial region to the left, we are led to the conclusion that there is hypertrophy of the left heart.

On *auscultation*, a blowing sound is heard, synchronous with the first sound, has its greatest intensity at the apex, is conveyed to the left, and is heard behind.

A slight murmur is also heard at the base, and is conveyed into the carotids. There is some question, however, as to whether the latter murmur is conveyed from the apex or belongs to a lesion at the aortic valves. It seems to possess a different character from the murmur heard at the apex; and from the additional fact that it is heard in the carotids, I should be inclined to regard it as a murmur indicating organic lesion at the aortic orifice. We have, then, in this case, aortic obstruction and mitral regurgitation. There is also hypertrophy of the left heart, with some dilatation of its cavity. There may also be some dilatation of the right ventricle, indicated by the œdema of the feet; but before deciding this point I should wish to examine the patient's urine.

The *treatment* of this case is for the most part purely hygienic. He should take iron daily. When there is failure of heart-power, as is evidenced by the œdema of the feet, digitalis may be of service. The better treatment in that particular, however, is to prevent failure of heart-power by avoiding *everything* which calls the heart into active exercise. Life in the country is better for him than life in the city. He should, if possible, live in a climate where there is the least liability of having another attack of rheumatism. For, after one attack of rheumatic endocarditis, every subsequent attack renders the case worse and worse, until finally the heart gets into an unmanageable condition and goes over to complete failure of the right, when there will be no hope of affording permanent, perhaps not even temporary relief.

On Percussion of the Bones.—Prof. Lücke, of Strasburg, makes use of percussion in the diagnosis of affections of the bones, the nature of the osseous lesions being indicated by the character of the percussion note. He has found that in healthy long bones there is a difference in the percussion note over the apophysis and the diaphysis, the sound of the apophysis being sharper. In the same individual, the sounds produced by percussion of corresponding points on the two sides of the body are similar in pitch. Over the callus of recently consolidated fractures and in chronic central osteitis of the apophysis, the percussion sound is duller than normal, while, on the other hand, in chronic arthritis of the knee the sound over the rarefied extremity of the tibia is higher pitched than on the opposite side. The fine differences in the tone are difficult to appreciate, and can be most easily obtained over the bones of the extremities, where there are no subjacent cavities. The extremity should be raised while practising percussion.—*Gazette Médicale de Paris*, June 30th.

Original Communications.

THE TREATMENT OF SPRAINS BY MASSAGE,

WITH A RÉSUMÉ OF ITS RESULTS IN THREE HUNDRED AND EIGHT CASES OF JOINT CONTUSIONS AND DISTORTIONS, OR THEIR SEQUELÆ.

By DOUGLAS GRAHAM, M.D.,

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"The physician must be experienced in many things, but assuredly also in *anatripsis*, the art of rubbing up; for things which have the same name have not always the same effects; for rubbing can bind a joint that is too loose, and loosen a joint that is too rigid; . . . . and the joint must be moved about, not violently, but so far as it can be done without producing pain."—*Hippocrates*, "Peri Arthrōn," Littré, vol. iv., page 100 *et seq.*

On the contrary, says Dr. Wharton P. Hood, in his very interesting little book on *Bone Setting, So-called*: "A slight degree of mobility, checked by pain, and accompanied by a spot tender on pressure, is sufficient in the absence of any evidence of acute disease, to justify manipulation having for its object the breaking down of adhesions (page 52). The painful spot being discovered, the limb must be steadied on the proximal and grasped on the distal side of the affected joint, the thumb pressure applied to the seat of pain, and the joint sharply flexed, or flexed and extended, sometimes also abducted or adducted, as the case may be (page 69). In executing these manœuvres the chief thing necessary is for the operator to have the confidence to exert sharply and instantaneously the full leverage given to him by the limbs (page 88). The morbid states that are actually successfully treated in this manner are stiffness and pain of joints, etc., and sprains, whether of recent date or of old standing, but which have been treated by rigidly enforced rest" (page 26).

The following two cases will better illustrate the views of Hippocrates than those of Dr. Hood on this subject. The first should have been an admirable case for the breaking up of adhesions according to the indications, and in the manner just described by Dr. Hood. Nevertheless, the manner and result of the manipulations in this case would, it seems to me, go far to prove that there were no such adhesions about or in the joint as to require such forcible procedure. Although Miss C. was a young lady of good muscular vigor and firm tissues, yet, perhaps, from presuming too much on these very qualities, she had sprained her ankle three times within two years. The last injury was naturally the most serious, the foot turning violently inwards as she alighted on a coil of rope while jumping into a row-boat. For two or three weeks following she was treated with rest, bandages, etc., and after that she got about on crutches, walking stiffly and with pain, and thus she continued for three months without further improvement. Despairing of anything being done, she reluctantly consented to try massage, for she had had ordinary rubbing every day since her accident. About three months after her mishap I was called, and on examination found that there was still considerable effusion in front of the external malleolus and behind the internal, pressure on which excited sharp pain, in the former more than the latter, and to these places was

referred the pain, which was aggravated by passive motion of the foot, and this pain seemed to be the chief symptom in limiting the passive motion to a very slight degree of flexion and extension. Stiffness and weakness of the muscles from the knee downwards, with induration of the cellular tissue, were also marked features of the case. After twenty minutes' malaxation, or kneading with the palm of the hand and fingers, alternating with friction in an upward direction as far as the knee, the effusion was slightly diminished, the tissues were suppler, the limb felt more comfortable, and yielded more readily to passive motion. The patient could now flex and extend the foot herself somewhat, which, before the massage, was almost beyond her power to do. At the second visit I added a little resistance to the voluntary flexion and extension of the foot, but this was almost a make-believe, so feeble were her own efforts in moving it. At the third visit the spots, which had been painful on pressure, could bear vigorous manipulation very comfortably. Henceforth friction, malaxation, passive and acto-passive motion were persisted in half an hour or so daily, and after five massages the patient walked about the house without crutches or any other aid, and did not require the use of them again. After the sixth *massage* she went up and down stairs naturally, and after the eighth walked half a mile, then eight days from the time this treatment was begun. Four more visits were made on alternate days, and at the last one I tied a handkerchief around the metatarso phalangeal joints (ball of the foot), and to this attached the hook of a spring-balance, the indicator of which was pulled out to 18 lbs. by flexing the foot (contraction of the anterior muscles), which is a severe enough test, as any one can ascertain if they will take the trouble to try. The patient has continued well ever since, and has had no relapse, now over three years.

Much of the immobility of the joint in this case seemed to me to be due to moderate tonic spasm of all the muscles of the leg, and I at once succeeded in convincing the patient that it was to a great extent within her power to cultivate the faculty of *voluntarily* relaxing them, so as not to resist the passive motion, which latter was proceeded with gently and tentatively, not forcibly, and with all the leverage afforded by the foot, but being limited by the slightest approach of pain and involuntary resistance, and thus in three or four days there was gained free movement of the joint.

In marked contrast with the condition of tissues observed in the affected limb of the previous case and the effect of massage upon it, is the flabby, atonic state of muscles and laxity of joint in the following case: Miss A. has been in a nervous, dyspeptic, half-invalid, loose-jointed condition for sixteen years. To pressure (I ought to say to touch), either on the spinous processes or on the muscles on both sides of them, her back is fearfully sensitive. High pressure in school life was said to be the cause of this state of affairs. There was no history of uterine trouble, nor anything of a hysterical nature about the case. For several years she had been growing flat-footed, for which shoes of such a make as would preserve the arch of the feet were advised. Nine months before I saw her she was walking along an uneven road, her foot slipped, and in the effort to regain her balance so as to save her back, she made a misstep, twisting her left foot inwards or outwards, she could not tell which. The foot swelled to about one-half more than its normal size, and the pain was referred mainly to the instep. For five weeks the recumbent position was kept and antiphlogistics used. Her further history to the time I saw her, eight months after, was one of ups and downs, aches and pains. Suffice it to say, that at my first visit I learnt that then a walk of a square would lay her up for a week with pain and weakness in the ankle and instep. She walked with a limp, and going up and down stairs was tedious and painful. When reclining, which was most of the time, the foot had a forlorn aspect, drooping forward and inward, and it admitted of too free passive motion in all directions except that of flexion, to which there was a yielding resistance, and this was felt by the patient as a disagreeable stretching sensation, not only in the calf muscles and those on the posterior aspect of the thigh, but also in the muscles of the back even to the nape of the neck. Along the inner border of the foot pain was said to be constant, and at the articulation of the first metatarsal bone with the cuneiform insertion of the tibialis anticus, there was too much mobility.

From six weeks after the injury to the time I was called she had had at various times three manipulators, non-medical people, who handled the limb as if they were afraid of touching it. There seemed to me to be no necessity for extreme gentleness in this case, as it was very evident the limb was now suffering more from impaired nutrition and innervation consequent upon the necessitated disuse than from anything else; so I at once began by giving it vigorous manipulation or deep rubbing as far as the knee, with brisk passive motion. That such could be done without causing any pain at the time seemed very wonderful to the patient, and no doubt the mental effect of this was good. I then asked the patient to move the foot herself as she was reclining, but it was a pitiful effort, scarcely visible. Nevertheless, I said, "That's first rate. Now move the foot up and down, and I will resist both ways." But this at first was a make-believe, for my so-called resisting motion was a simple aiding of the patient's voluntary effort, and no resistance at all. The object was to encourage the effort of the will, which in this condition might be one-half or two-thirds what was necessary to do the required movement. Under these procedures the defective will-power and impaired nutrition improved *pari passu*.

After the first *séance* of twenty minutes it was to be expected that such a hyperæsthetic individual would be quite tired out and much worse generally, as was the case; but I firmly adhered to the theory that the more strength the limb gained the better able would she be to bear her numerous aches, in which she agreed with me. The patient was directed to try to flex and extend the foot a few minutes twice daily when lying down. On the day following the third massage, February 11, 1877, the patient walked without limping any more. From this time onward resisting motion was no longer a make-believe, for it was evident that the limb was gaining strength from day to day, so that after half a dozen visits in eight days she went up and down a long flight of stairs naturally and easily. At the end of ten days, after seven massages, I tied a handkerchief around the ball of the foot (metatarso-phalangeal joints), and put one loop of this over the hook of a spring-balance, the indicator of which was pulled out several times to 12 lbs. by the upward movement or flexion of the foot. The other foot pulled 16 lbs. in the same manner; this one had also been getting a portion of the same treatment, for it too had suffered somewhat from disuse. In the next four weeks half a dozen more massages were administered, and the foot and ankle gradually increased in strength so that she could do anything with the limb that her

general strength or the state of her back would allow, from going upstairs with an elastic step or walking half a mile to utter indisposition to move from the couch. The foot and ankle were no longer the weakest parts which "had to stand the strain," the muscles of the leg were firmer and stronger, and it seemed as if there was more of an arch to each foot, a result which an improved state of tonicity of all the muscles of the leg and foot, but particularly of the tibialis anticus and peroneus tertius, might tend to produce by supplementing any natural or acquired laxity of ligaments.* Six weeks later the patient wrote to me that "both ankles were certainly stronger than before the accident last spring." †

To Dr. Stoddard, of Northampton, I am indebted for the history of the following case: "Some three months ago I was called to see a young lady who 24 hours previously had made a misstep in descending a flight of stone steps, twisting her right ankle. Considerable pain was experienced in the foot and ankle at the time; but as she was not actually incapacitated for motion, she continued to hobble about until a few hours before my visit, when increasing pain and swelling alarmed her, and my advice was sought. I found the foot and ankle much swollen, and their temperature considerably elevated. When motion of the foot to any extent was practised, she cried out with pain; the power of voluntary motion was much impaired. With some hesitation, for I had not then ventured to employ massage in a case of recent sprain, I suggested a trial of this method. A gentle but thorough manipulation was not only surprisingly well borne, but the patient expressed considerable relief from pain at the close of the operation, the swelling was reduced one-half, and at my request she practised voluntary motion of the foot. To meet the prejudices of the friends a flannel bandage wrung out of arnica-water was applied, and quietude enjoined. At my second visit, 24 hours afterwards, the relief experienced had been maintained, and both temperature and swelling were still further reduced. A second manipulation was as well tolerated, and appeared to be of the same relative value, as the first. Passive motion was practised with but little expression of pain; accordingly moderate voluntary motion was directed. A third application of *massage* two days subsequently secured almost complete subsidence of swelling, the temperature of the parts had become nearly normal, and no pain was experienced on passive motion, so the patient was advised to walk about a little. The flannel bandage had been discontinued after the second day of treatment. The case went on well, and, after two more applications at intervals of two days each, was dismissed. At that time she walked with a scarcely perceptible limp, and complained only of a little weakness of the ankle. These symptoms soon disappeared and a few days later she was walking as well as ever."

Dr. Corey, of Westboro', has very kindly sent me a report of the following case which he also treated with massage: "J. M., young man æt. 16, fell from a fence, striking upon the right arm in such a manner as to cause what seemed to be a severe sprain at the elbow-joint. In less than an hour after the injury I saw the arm, when the joint was so much concealed by the swelling as to make it very difficult to make out the landmarks. I could discover no fracture nor dislocation, but wishing to be certain, I at once went to work to reduce the swelling, so that I might the better learn the condition of the joint. I began massage on the upper border of the swelling, and in about twenty minutes, much to my surprise, the arm was reduced to nearly its natural size, and the joint was easily traced in all its points. I predicted, as is usual with such cases, a lame arm for several weeks; but, upon the second day after, I met the young man carelessly swinging his arm, and on inquiry as to how it was, he answered that he had had no trouble with it since the day of his fall. Now, one of two things: either the condition which caused the swelling was different from that which usually attends such accidents, or the massage restored a natural state of the tissues and prevented the inflammation which so constantly follows."

Mullier* gives a comparison of the treatment of sprains in the Military Hospital at Namur, from 1871 to 1874. In 1871 and 1872 there were treated 42 sprains with immovable dressings, tight bandages, etc. The average duration of this treatment till recovery was 25.6 days; whilst in 1873 and 1874 there were 37 sprains treated with massage alone, the mean duration of treatment till recovery being nine days. The latter procedure offers important advantages in fractures; and several cases are cited in which the presence of fixed pain, of ecchymosis around and over the external malleolus, of swelling and functional disturbance, would have led to the diagnosis of fracture of the fibula. After a few massages, the uninjured continuity of the bone could be recognized, and a proportionately speedy recovery obtained. In one case, after daily massage for five days, the swelling was so diminished as to reveal the existence of a fracture. (When the swelling is so tedious and difficult of removal, one might reasonably suspect more serious mischief than a sprain alone.—G.)

In the *Allgemeine Medicinische Central Zeitung* for Sept. 4, 1875, is a report, entitled, "*Results of Massage in Joint Contusions and Distortions*," by Dr. Gassner, Military Surgeon, Würzburg. Gassner quotes from Billroth, Volkmann, and Erichsen, to show that, in spite of the most careful and conscientious treatment in the usual manner, even apparently light sprains sometimes lead to secondary consequences. He states that since Dec., 1874, he has made use of massage exclusively in 24 cases of acute serous joint inflammation occasioned by sprains, with the result in every case of speedy and complete cure. Of these 24 cases, there were 9 of the ankle, 7 of the knee, 6 of the wrist, and 2 of the elbow-joint. Most of the patients were strong, robust men, who reached the hospital on the second or third day after the injury, with the contours of the injured joints completely effaced, and the surrounding tissues hot and painful. The presence of bone or of muscular injuries, or of considerable rupture of ligaments, could not be proven in any of these cases. The average duration of the stay in the hospital for all of the 24 cases was $8\frac{1}{2}$ days; for those of the ankle-joint, $9\frac{3}{10}$; for those of the knee, 9 days; for those of the elbow, 9 days; for those of the wrist, 5 days. A chronic case of serous inflammation of the knee-joint after having been in the hospital for 118 days under the usual treatment, then had massage for 24 days, and was ready for military duty. Gassner wishes it to be understood that the duration of the treatment in all these cases

* Dr. L. Faye, of Christiania, has seen favorable results from massage in relaxation and slackness of joint capsules and ligaments.—Schmidt's Jahrbüch., Bd. 168, page 278.

† In the New York Medical Journal for January, 1874, there is an interesting article by Dr. Wm. R. Fisher, on an old, troublesome sprained ankle which was successfully treated by massage, in a comparatively short time.

* Virchow u. Hirsch's Jahresbericht, 1875, vol. ii., p. 333.

could be put down as much shorter, if the time were deducted which the patients remained in the hospital after "perfect cure," until they were unequivocally able to do full duty without hindrance. The majority of the patients were free from pain, swelling, and other disagreeable symptoms on the second day of the treatment, some of them were on the first, and all were by the third.

Like favorable results did Gassner obtain in five similar cases also treated by him with massage, outside of the hospital. These cases, says he, convinced him of the real benefit, indeed, almost magical effect, of the massage, which he thinks was materially aided by making the patients use the injured limbs in spite of the pain. It cost him no little doubt as to the propriety of laying aside the dogma of absolute rest.

For the sake of comparison, Gassner places the above-mentioned 30 cases treated by massage against 13 quite analogous cases which were treated by him in the usual manner of rest, immobility, etc., and which also recovered, but only after weeks in place of days. The duration of the stay in the hospital of these 13 cases was on the average 28 days; for 6 cases of the ankle, 22 days; 3 of the knee, 37 days; 3 of the wrist, 30 days; and 1 of the elbow-joint, 28 days. He also mentions two more cases which he treated after the ordinary methods, in which but limited usefulness of the limb resulted, so that after all the patients had to be considered as half-invalids. Only in severe injury of the joints, attended with considerable rupture of capsules, ligaments, or muscles, or harm to the bones, would he make use of immobility by plaster-of-Paris dressing; and after the parts have been kept at rest long enough to allow time for repair, he would then apply massage to get rid of the consequences of the previous immobility. But he would give massage the preference to all other methods in such cases as those he has treated by it; for well he remembers the tardiness of recovery of his own sprained left ankle and contused right knee, in 1862, under the many weeks of regular treatment, followed by months of painfulness and irritability of the joints, and much he regrets not then having had massage.

Dr. G. Berghman.* of Stockholm, has treated, by means of massage, 145 cases of recent traumatic joint affections not over 8 days old, contusions and distortions with or without effusion, synovites with serous effusion or effusion of blood into the joint capsule, etc. Of these 145 cases, there were 70 of the ankle, 41 of the knee, 8 of the tarsus, 10 of the wrist, 5 of the elbow-joint, 6 of the fingers, 2 of the acromio-clavicular, and 3 of the humero-scapular joints. The ages of the patients varied from 6 to 70 years. (One case 88 years of age is given in detail.) In no case, it is said, did the treatment by *massage* leave them in the lurch, for there followed always "perfect recovery;" and none of the patients, almost all of whom Berghman saw long after, complained of any trouble worth mentioning. Two sittings were given daily, and of the number necessary till "cure," it was evident from the statistics that these depended on the time when massage began, for recovery was so much the sooner the earlier after the injury this method was put in use. For the 70 cases of the ankle in which massage was used within four days after the injury the average number of sittings was 11.70, time nearly six days till recovery; for other cases of 5–8 days' duration before massage, 19.37 applications, or 9½ days on the average. The knee cases of 4 days' standing required 10.46 *séances*, time occupied 5⅓ days; those of 5–8 days old, 19.33 massages, or a little over 9½ days on the average. I have been unable to find the statistics in full of these cases, but the summing up is given in the second journal referred to, as follows: 104 cases in which massage was applied within 4 days after injury were "cured" with an average of 12.44 sittings, or in about 6⅓ days; 41 were treated by massage after 4 and before 9 days had elapsed after receipt of injury and required on the average 17.60 massages, or nearly 9 days till recovery. In order to show that the older the results of such injuries were before this method was used upon them, the longer did it take them to recover, a table has been given of 38 cases in which from 9 days to 3 months had elapsed before massage was begun, and the average number of sittings required was 44.68, or 22⅓ days.

In traumatic joint affections Berghman finds that the massage has an antiphlogistic and sedative effect, not an irritating one, as was formerly supposed; and that it does not have the disadvantages of other antiphlogistics, whilst it speedily obviates or removes blood-stasis, furthers the absorption and removal of accumulated parenchymatous exudation as well as of the out-wandering white blood-corpuscles, and thus restores the normal relations of pressure in the circulatory system. Clinical histories are amply communicated to show that in severe cases massage afforded relief in an incredibly short time. One or two sittings were usually sufficient in apparently very unfavorable cases to allow the patients active motion of the injured joints, even of the lower extremities. B. considers that the earliest possible use of the injured joints is very useful. Quite a number of these patients were brought before the Society of Swedish Physicians during and after treatment.

It may not be amiss to give a few of Berghman's cases here: A man, æt. 26, of unusually large and heavy frame, sprained his ankle so badly that he could not walk. The foot was enormously swollen, the skin around the ankle hot and shining; there was extravasation of blood under the skin, which extended far up the leg, and effusion of blood had taken place into the joint.* The sensibility to touch over both malleoli was so great that Berghman feared fracture. After one massage of 15 or 20 minutes, the pain was so much decreased that the patient could walk a little. The next day two *séances* were held at the house of the patient, and on the third day the patient came to the house of Berghman. On the ninth day the patient could dance. Still, as some swelling and a feeling of stiffness remained, the treatment was kept up for some time longer; and after forty-six massages the patient had no more trouble.

A man, thirty years of age, formerly suffered from traumatic effusion into the left knee-joint, which confined him to bed for eight weeks before he could make any use of the limb. Again, by a fall, the same knee was forcibly bent, and thus injured the second time. Immediately there was severe pain and great swelling in the knee-joint. In spite of the knee being

* Schmidt's Jahrb., Bd. 172, page 172; Allg. Med. Central Zeitung, 1876, page 18.

* It would seem to be statiog it rather too positively in saying that effusion of blood had taken place into the joint. In view of what is known about such an occurrence, *probably it had;* for Billroth says that "when the patient has died of more serious injury and afforded opportunity to examine such lesions we find in a moderately contused joint extravasations of blood in the synovial membrane, and even blood in the cavity of the joint itself; in contusions without fracture the effusions are rarely so extensive that the joint is tensely filled with blood, though this may occur."—Surgical Pathology, p. 214.

"Effusion of blood into the joint is indicated, should swelling of the articulation follow immediately upon the injury, contusion, sprain."—Bryant, page 711.

surrounded with ice, neither did the swelling nor redness abate; and it still remained hot and sensitive. After the first massage the pain all disappeared, and the patient was able to walk without much difficulty. After twelve massages in six days the effusion and all the other annoyances disappeared, and the patient complained no more of pain and weakness in the knee.

The shoulder-joint was considered difficult to manipulate on account of its anatomical peculiarities. The following is certainly a severe and unfavorable enough case to test the merits of any treatment whatsoever. But few men would have sufficient enthusiasm for massage to make use of it in such a case. A man, eighty-eight years of age, by a fall got a contusion of the shoulder-joint. Two hours after the injury, B. found considerable swelling and such exquisite sensitiveness to touch that a proper examination could not be made without chloroform. From the axilla there was felt in the joint capsule a good deal of fluctuation. Luxation was not frequent, but upon rotation of the head of the humerus crepitation was observable, yet this was less than and different from what is usual in fractures, and there was no preternatural mobility; so that B. came to the conclusion there was no fracture, but that the crepitation was due to the churning of blood in the joint. Massage was used, and by its influence the pain was allayed on the following day. Sensitiveness to pressure and incapability of motion remained somewhat longer, for the arm had become extraordinarily swollen, much of this being due to extravasation of blood. After sixty-six massages the patient was so well that only slight difficulty of motion supervened after unusual exertion with the arm, but this disappeared by degrees under the use of gymnastics (!). A similar case of injury to the shoulder-joint in a man forty-eight years of age follows, in which, after thirty massages with gradually increasing passive motion, the effusion, swelling, and pain had subsided, and the arm moved well, though still somewhat weak. "Perfect cure" resulted under continued exercise.

"If previously," says Berghman, "a plaster-of-Paris dressing has been applied, even if but for a short time, then there is no prospect of speedy cure by means of massage. The dressing, to be sure, exercises pressure upon the swollen tissues and diminishes the œdema in part, but not altogether; the injured limb is kept motionless, the connective tissue proliferates, and soon assumes a plank-like hardness."

Though this *matted, board-like* condition of the areolar tissue was a very marked feature in a case of old sprained ankle, which as a last resort of the therapeutics of despair, had had a plaster-of-Paris dressing applied for six weeks, which had been just left off before recourse was had to massage, yet having had but two massages in one week the patient began to walk the following week without crutches, and two weeks later walked well. As it was with the utmost difficulty that this patient could have any massage at all, I extended each of the two sittings to three-quarters of an hour, and it was very interesting to observe, every few minutes, the suppleness of tissue that was manifestly being gained. For several weeks at first the sprain was regarded as of no account, and the patient limped about, but gradually it became worse, and for more than a year the patient had used crutches, except when at rest.

Dr. F. W. Westerlund,* of Helsingfors, has treated cases of acute traumatic joint affections by massage with like favorable results to those of Berghman. As illustrations, six of his cases are given: One, a sprain of the metacarpo-phalangeal joint of the middle finger, with pain, swelling, and impossibility of motion, was well after four massages in three days. The second, an acute traumatic synovitis of the ankle-joint, was restored to its normal condition after six sittings. The third, a case of severe contusion of the right foot, with fluctuation in the ankle-joint and great suggillation of blood under the malleoli, was no better for five days' rest alone, but after eight massages was well, and could walk a mile and a half. The fourth, a contusion of the knee, in a child five years of age, was able to walk without hindrance after three massages, and, after five, swelling and sensitiveness were no longer present. The fifth and sixth, sprains, with redness and swelling, said to be well in three days, after six massages each.

M. Panas (*Journal de Médecine et de Chirurg.*, vol. 43) has treated twenty-three cases of sprain, of which there were twenty of the foot and three of the wrist. Of the twenty of the foot there were twelve of the left and eight of the right. The treatment consisted invariably in the use of massage combined with compression with a roller bandage, alone or with the interposition of wadding. Cure has been the rule in a space of time comparatively short, viz., from the fourth to the seventh day after the accident.

M. Fontaine (*Allgemeine Med. Central-Zeitung*, Oct. 3, 1874) says he has used massage in a number of sprains with extraordinary favorable results. One was attended with laceration of the tendon of the plantaris muscle, another was a sprained hand and thumb, besides about a dozen cases of *distorsio pedis*, mostly light ones, only two being of the severer kind. Recovery resulted in a comparatively short time, the duration of the treatment on the average being from four to nine days, and for the more severe cases from fifteen to twenty days.

In a monograph, entitled "*Du Traitement de l'Entorse par le Massage*," by Dr. F. Rizet, *Médecin Major*, published at Arras, the details are given of fifteen cases of sprains in which massage was employed with results so surprisingly speedy and favorable to M. Rizet, that he would not allow the patients to make use of their injured joints as soon as they desired. The average length of time (probably too short) for the recovery of all being set down at three days, for the knee and ankle four and two-thirds days. Of these fifteen cases, twelve were recent and three were chronic. Of the recent cases four were sprains of the finger-joints, with pain, heat, swelling, and impeded function, which were treated with two or three massages daily, and got well in from two to three days after the injury; six were sprains of the ankle, all of which showed marked improvement by the second day of massage; one of the knee, in which the swelling and redness ceased by the third day, the pain not till the fifth, and the patient was discharged as well and able for military duty on the seventh day after the injury; and one of the wrist, which got well in four days.

The sprains called chronic were from seven weeks' to three months' duration; two were of the wrist and one of the foot, and they are said to have done as well under *massage* as the recent ones, notwithstanding the experience of others that such cases usually take longer. The following seem to be two of his most severe cases:

N., sergeant, fell the 1st of January on the stairs of the barracks, the left foot in the fall being turned outwards so that the entire weight of the body came

* Schmidt's Jahrb., Bd. 172, page 173.

upon the internal border of this organ. At once there followed pain of the most lively character, great swelling, which concealed the two malleoli, ecchymosis upon the dorsum and internal lateral surface of the foot, absolute impossibility to place the foot upon the ground, and two or three successive syncopes. The evening of the accident there was practised a *séance* of massage of half an hour, which so relieved the patient as to allow him to place his foot upon the floor; the swelling was sensibly diminished, so that the malleoli could be distinguished, which till then were confounded in the general puffiness. If the patient had been allowed he would immediately have left the infirmary, whither he had been transported after his fall, but his entreaties were in vain. Next day two massages, and applications of cold water were continued, which had been used immediately after the accident, before we had seen him. The two nights following his injury the patient rested well, and on the third day after the accident movements were given to the articulation which did not occasion any suffering. During the following few days there only remained slight swelling, and the patient was allowed to leave the infirmary on the 8th of January—seven days after the mishap. He had no more trouble of any kind from the joint.

M., sapper, æt. 23, on the 27th of June, in attempting at a running jump to go over a wide ditch, failed to reach the summit upon the further side, and fell upon the escarpment, severely spraining both ankles. Decided pain at once set in, and swelling soon was very great on the dorsal aspect of the left foot, and on the external lateral surface of the right; the intermalleolar spaces of both ankles were completely filled up, and it was absolutely impossible for the patient to stand. At his entrance into the infirmary, the same day, a massage of nearly an hour's duration was given, which was borne with much pain. Compresses soaked in lead-water were applied. June 28th, patient passed a comfortable night; diminution of restraint of movement; three more massages and gentle passive motion given to the feet. By the upward pressure, made slowly and gradually with the palm of the hand, the effused liquids are repelled from around the ankles and out of the grooves on each side of the tendo-Achillis towards the superior parts. This day the patient began to stand on his feet, and wished to walk, so much did he feel relieved. Lead-water was suspended and massage alone continued. On the 29th the right foot seemed well and the left evinced but one painful point. On the 29th there was more swelling, and pain reappeared on passive motion of the articulations; redness disappeared. In the evening the feet presented but slight swelling, and the patient felt well. Massage was continued till the 8th of July, and then suspended, but the patient was not allowed to depart until five days later, on account of the weakness which he experienced in walking.

If in some of our recent sprains, says Rizet, we still have had recourse to cold water or *resolutifs*, it must be avowed it was more the force of habit than of reason which dictated this precept to us, and which, with this mode of treatment, we regard as entirely useless, for in a very short time the massage relieves the pain better than cold water. The duration of the pain at first occasioned by the massage he has found to vary from five minutes to half an hour; the pain of the injury from two to five days under massage treatment. He expresses his appreciation of the value of massage in sprains in the following manner: "Struck by the words of Baudens at the Academy of Sciences, that 'of 78 amputations of the leg or of the foot, 60 had sprains for their origin,' it was with eagerness we seized opportunities to experiment with a means which, far from deceiving us, has given unlooked for success. They have strongly shaken the faith we had in the therapeutics preconceived by our predecessors and our masters, in forcing us to recognize that the application of immovable bandages in acute sprains has been the most powerful cause of the deplorable effects disclosed by the venerable surgeon-in-chief of Val-de-Grace."

It seems to me that Rizet must have inflicted more pain than was necessary upon his patients, for he states that he began the massage at once over the tumefied and painful places, though gently, and not as most of the others here mentioned seem to have done, and I think as one would naturally do who understood the effects of massage: first, centripetal and circular rubbing at some distance above the injured parts, which can be gradually approached as the soothing effects of this procedure manifest themselves; then alternating with the friction, *pétrissage*, kneading or manipulation, which can also be gradually increased in force and approach the painful spots as its anæsthetic allow; and thirdly, passive motion, which, besides its therapeutic effects in aiding the before-mentioned manœuvres in promoting absorption and preventing blood-stasis and the formation of adhesions, also shows by its degree of toleration what improvement is being gained; and lastly, if the case be a chronic one, varying these procedures with acto-passive or resisting motion.

Thus far I have given but a brief résumé of some of the more recent results of massage in sprains. A copious bibliography of this subject can yet be found in the last edition of the *Nouveau Dictionnaire de Médecine et de Chirurgie*, which lack of space forbids inserting here. And now I may as well sum up what has already been given, for I can find no different or adverse testimony about the matter, and if any one else can I hope they will publish it forthwith. With the exception of the first four cases and my one with the matted, board-like condition of the areolar tissue, we have, then, the results of massage by seven independent observers, whose cases of joint contusions and distortions, sprains or their sequelæ, thus treated, amount in all to 308, of all grades of severity, of which the average length of time till recovery is 9.1 days. This time would be much less if the 39 cases were omitted in which massage was not begun until from ten days to three months had elapsed after the injury, "in many of which," says Berghman, "other methods of treatment had failed," and which required, on the average, about three weeks' massage till recovery. Of the 55 cases treated by the usual method, the average length of time till recovery was $26\frac{1}{8}$ days, or nearly three times as long as similar cases required by massage. The advantages of massage, then, in such cases would seem to be more speedy relief from pain and swelling, and earlier and more perfect use of the injured joints than by any other method.*

It requires a good deal of patience, tact, and delicacy of touch in order to gradually approach swollen and painful tissues so as to be allowed to make pressure and movement upon them; and the busy prac-

* Since writing the above, Dr. T. A. Foster, of Portland, Me., has told me that he thinks there are but few physicians who are aware of the value of massage in sprains. He has used it himself in very severe recent cases, with great or complete relief from pain at the first sitting, and he finds that he can allow his patients the use of the injured joints much earlier than he formerly dared to do under classical treatment. Yet if a case of this kind should come into court he very much doubts if such treatment would not be regarded by the profession at large as malpractice.]

titioner, in his haste to get the patient well, is apt to overdo the matter at the very commencement of it. Manual dexterity acquired by constant practice—other things being equal—is the secret of success of operative procedures of all kinds, as well as of the art of applying massage. Incident to all occupations are found anatomical peculiarities of structure largely acquired, and so we find the hand of the *masseur* large and muscular, but soft and delicate, the finger pulps greatly developed with a delicacy of touch that can usually detect the tender spots when there is no external evidence of them, and before the patient has told or shown by reflex action where they are.

Progress of Medical Science.

Disease of the Anterior Cornua.—At the meeting of the *Société de Biologie*, of Paris, in March, M. Raymond presented a marble-worker, 49 years of age, who had received at the age of four years an extensive burn of the left arm. The hand is at present a deformed stump. In consequence of excessive use of the right arm the right hand became paralyzed without pain or tingling, and subsequently atrophied. M. Vulpian expressed the opinion, that the paralysis was due to a lesion of the anterior cornua, caused by the irritation induced by increased use of the arm. He recalled a case he had seen in consultation with M. Charcot, that of a tanner, aged 20 years, who was afflicted with infantile paralysis of the left arm, and in whom the right arm became atrophied in consequence of excessive work. He also referred to the case of a soldier, who was wounded in the outer part of the leg, at Reichsoffen, and who was attacked two years later by violent sciatic pains, followed by almost complete atrophy of the entire limb.—*Lyon Médical*, May 27th.

Endocarditis Blennorrhoica.—In a paper published in the *Archives Générales*, Dr. Marty gives the history of a case of gonorrhœa in a man 22 years of age, which was complicated by acute endocarditis located at the aortic valves. The principal symptoms were initial chill, fever (104° F.), systolic murmur over the aortic valves, palpitation of the heart and precordial oppression. There was no rheumatism or metastatic articular affection.

Dr. Marty has collected nine other cases from the French literature, in which a disease of the heart or of the pericardium developed itself four or five weeks after the commencement of a gonorrhœa. Of the ten cases (including the above), seven were endocarditis and three pericarditis. Of the former, the affection was located four times at the aortic valves, and three times at the mitral valves. In eight of the cases the cardiac affection was preceded by gonorrhœal rheumatism; in the other two cases there was no articular affection. The complicatiou was sometimes ushered in by a chill, and frequently coincided with a cessation of the discharge from the urethra; in other respects its course did not vary from that of the ordinary form of endocarditis. The frequency with which the affection was located at the aortic valves was noticeable, the converse being the case in acute articular rheumatism. The case reported above ran a favorable course; the patient left the hospital with a systolic, aortic murmur, but without demonstrable enlargement of the heart. The urethral discharge was re-established when the acute symptoms disappeared.

Dr. Marty concludes his paper with the assertion that any serous membrane may be attacked by inflammation during the existence of a gonorrhœa, and that this inflammation is consecutive to the primary disease of the urethra.—*Allg. Med. Central-Zeitung*, June 2d.

On the Nature and Signification of the Small Red Blood-globules.—M. Hayem, in a note addressed to the *Académie des Sciences*, states that his physiological and clinical investigations have convinced him that the so-called microcytes, which are described by some observers as specific elements, are simply small red globules modified by external agencies. They do not pre-exist in the blood, and their number varies according to the way in which the preparation has been made. The smallest elements that can be recognized as possessing the character of the red globules measure only two-thousandths of a millimetre. Despite their exiguity they are perfectly disk-shaped and biconcave, but they are sometimes lighter in color than the larger globules. In pathological conditions these globules may lose their disk-shape, but the biconcave form is always retained. The so-called microcytes are spherical in form, some being strongly refractive and dark, and others pale in color; the former appear to be red globules in a sort of tetanic condition, for certain reagents, in destroying them, restore their normal biconcave form. The latter are the more tender elements, which offer less resistance than the others to the effects of endosmosis. The small globules are liable to undergo these changes of form in the normal as well as the pathological state, but certain morbid conditions render the transformation more easy. When blood containing a certain proportion of these globules is examined in the moist chamber, many of them may in fact be seen to assume a spherical, vesiculate, and sometimes even a mulberry form.

The blood of the healthy adult very rarely contains small and dwarf globules, but the blood of the newborn child and of the menstruating woman always contains them. In pathological conditions they are often met with, as after hemorrhages, at the commencement of convalescence after acute diseases, and in chronic anæmia of moderate intensity.

The small red globules are found both in the normal and the pathological state, whenever an active production of new elements is taking place; they characterize blood in process of evolution or reparation. From this M. Hayem concludes that they are young, incompletely developed globules, differing from the adult globules only in their exiguity and the facility with which some of them become spherical when removed from the vessels. In organisms which present the conditions necessary for their normal evolution, they are only found in the blood at times when they are formed in large numbers (first weeks of life, menstrual period), and are then never very abundant. In pathological states, on the other hand, when they do not meet with the conditions necessary for their normal evolution, they remain small and accumulate in the blood, so that they sometimes become exceedingly abundant. This is doubtless the reason why the small globules are met with in such abundance in the blood of some anæmic persons: many young globules are formed, but they do not attain their normal development.—*Gazette Médicale de Paris*, June 16th.

Diphtheria.—From a recent discussion before the Therapeutical Society of Paris we learn that our materia medica contains only doubtful resources against diphtheria.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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ADVERTISING PORTRAITS.

It would seem that medical advertising in one of the necessities of the times, so prevalent is it, and so much is it on the increase. With a certain class we are never astonished at any amount of advertising. Whenever the latter is going on, no matter in what shape, these men are expected to be in the front. As no one is to blame, the modest men get tired of guessing at the remarkable coincidences in the law of accidents, and simply view them as matters of course. But it is not our purpose to repeat the old story regarding these chronic and constitutional offenders, as the majority of them are beyond hope of reform, but we wish to call attention to the reprehensible practices of some professional men of standing and of reputation. In the sharp competition for business and in the crowded state of the profession it appears that extraordinary means must be used occasionally to make success reasonably certain. With these men medicine is a business, and must be managed as such. Consequently no opportunities must be neglected for securing pecuniary prosperity. Judicious advertising is such a recognized foundation for this success that it is hazardous to neglect any chance which may offer itself. Hence we are hardly surprised at any manœuvre which has the required end in view. In this connection we will take occasion to refer to a somewhat novel method of gaining public notoriety.

There is being published in this State a cyclopædia or gazette of useful information, in which are contained the lives and exploits of distinguished men of all callings and professions. No one can deny that there are in our ranks men who can grace any page in history of scientific achievements, and it is proper to say that they should have a fair show. There is no objection to the history of any man's life being written before he dies. If it serves no other useful purpose, it furnishes reliable data for obituary notices. We contend, however, that there is a way of publishing these autobiographies in which ordinary modesty and good taste are not offended. But a step has been taken so far beyond the ordinary proprieties that we allude to it with pain and mortification. The publishers of the volume in question have hit upon a rare business expedient in forestalling the success of their undertaking. It is a simple appeal to the personal vanity of certain individuals for a certain sum of money. Besides a flattering notice of the subject of a sketch, a fine steel portrait is executed of him and inserted in the body of the work for a sum ranging from two to three hundred dollars. If this is not a deliberate, paid advertisement of any person whose portrait so appears, we are at a loss what to call it. No matter how worthy any man may be, if he is not able or willing to pay the required sum for the engraving, he is, in the public eye at least, not a distinguished person. It may be hard to believe that some of our medical men, who have earned good reputations for themselves, and who hold professional places of honor and trust, have stooped to such a bad species of taste, but such is the fact nevertheless. And after all, does it not prove the injustice of voluntary advertising in the fact that it must always be a question of money rather than merit? As in advertising in any business the longest purse must tell, certainly the round sum for the portrait settles the question of preference for the one who pays. As an encouraging offset, however, to this miserable business we know of many gentlemen who have declined to become parties to such frauds upon the profession and the public, and whose portraits will consequently not appear in the forthcoming work.

THE PROVIDENT DISPENSARY PLAN.

The attempt to establish the medical provident system seems to have been a failure; at least nothing thus far has been done by the committee having the matter in charge. We have had the meetings, the reports, the speeches, and the resolutions, and now the matter rests. In the meantime the abuses of medical charity are, if anything, increasing in extent, the dispensary classes are more than ever crowded with applicants for relief, and the institutions themselves are appealing to the charitable for aid to carry on their work. The promises for reform which were held out by the advocates of the provident plan have vanished into the emptiness of deferred hope. Even the out-door department of the New York Hospital, which should have been brought to some account, still sells gratuitous medical services for a dollar a month to any one who applies, and many young practitioners must either underbid the wholesale price or prepare themselves to enter some other business.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

The coming meeting of the American Public Health Association will doubtless be equal to the most sa

guine expectations of all who are interested in its success. Judging from the programme which has been sent to us, the topics discussed will be sufficiently numerous and varied to command the attention of scientists, humanitarians, economists, sanitarians, and physicians. Looking back five years ago, when this Association was first organized, it is hard to believe that so much valuable work has been done. In fact, its remarkable success has proved what can be done by a handful of competent and earnest workers in a great cause. Probably no association of its size or kind can command a more extended hearing through the press, and is more capable of exciting a greater influence for good with the public. If it were necessary to ask its support by the profession, we should do so most heartily. But already by its faithful work it has commended itself to respectful countenance, not only of the entire medical profession, but of learned men in every calling.

Reports of Societies.

OHIO STATE MEDICAL SOCIETY.

Thirty-second Annual Meeting.

First Day at Put-in-Bay.

(Special Report for Medical Record.)

The Society met at 2 o'clock P.M., June 12th, and was called to order by Dr. T. W. Gordon, first Vice-President, in the absence of the retiring President, who introduced President-elect, Dr. W. J. Scott. Dr. Scott thanked the Society for the honor conferred by being invited to the responsible position he was called to occupy.

The Executive Committee reported the regular order of business, and fixed the hour of meeting at 9 o'clock A.M. daily.

SULPHATE OF QUININE AND FEVER HEAT.

Dr. T. W. Gordon then read an able paper on the use of "Sulphate of Quinine in Controlling Fever Heat." This paper was discussed at length. The prevailing opinion seemed to be that when fifteen to twenty grain doses of quinine were given, the extreme fever heat was susceptible of being controlled. Some thought the same result could be reached by giving moderate doses of from three to five grains.

After some miscellaneous business was transacted, the Committee on Obituaries reported the death of the following members: A. B. Jones, Portsmouth; J. S. Bailey, Freeport; Alex. McBride, Berea; S. H. Farrington, Ashtabula; E. Thorn, Yellow Springs; Stephen Benner, Cincinnati.

Dr. Pooley, of Columbus, read a memorial upon the death of Dr. William Awl, in which the services of Dr. Awl as a surgeon and philanthropist were forcibly depicted.

Dr. Jones spoke in feeling terms of the character and services of Dr. Awl.

The Society adjourned until 8 o'clock P.M., when Dr. Pooley, Professor of Surgery in Starling Medical College, delivered an interesting lecture on the art of surgery. The Doctor traced its rise and progress from the time of Hippocrates to the present. He showed conclusively that American surgeons are not inferior to the best in the world, and that to them surgery is indebted for some of the best operations known to the art.

Second Day.

MILK SICKNESS.

The Society was called to order on the second day by the President. Minutes read and approved. After miscellaneous business, Dr. S. S. Gray read a paper entitled "Milk Sickness." His deductions were that this disease is the result of the consumption of some noxious plant that is only found in some uncultivated fields, by various animals, and thence communicated to the carnivorous and omnivorous species.

Dr. Pooley thought it possible the disease was caused by the development of a peculiar fungus.

Dr. Forbes, of Toledo, read a paper in which he treated of Reed's method of reducing dislocations by manipulation, citing numerous cases which occurred in his own practice of dislocations of the hips, shoulder, and wrist. With an assistant Dr. F. illustrated the manner of reducing a supposed dislocation of the wrist of one of the members. A lengthy discussion of this paper was had, taking a wide range.

Dr. Dunlap, of Springfield, read a paper on "Fibroid Tumors of the Uterus." This paper was met with many manifestations of interest and appreciation at the hands of the Society, and was warmly discussed by Drs. Reamy, Dunlap, and others.

ELECTION OF OFFICERS.

Election of officers resulted as follows: *President*, Dr. W. H. Phillips, Kenton, O.; *Vice-Presidents*, Drs. Forbes, Muscroft, Hubbard, Reed, A.M.; *Treasurer*, S. S. Gray; *Recording Secretary*, J. W. Hallock; *Assist. Secretary*, J. F. Baldwin.

PRESIDENT'S ADDRESS.

The President then read his address, the subject being the necessity of greater preliminary instruction for the medical student before entering upon his studies proper, and before commencing the study of medicine.

A committee of five was appointed to consider and report at the next regular meeting on the subject of the President's address.

THE PRESENTATION OF PAPERS.

Dr. Scott introduced the following: *Resolved*, That the author of any paper to be read before the annual meeting of the Society must send its title six weeks in advance to the Secretary; and that he shall send a printed notice of all such papers to every member of the Society one month previous to its annual meeting. Volunteer papers shall be read after the regular papers have been disposed of. Carried.

Dr. S. C. Ayers read a paper on "Paracentesis of the Cornea," which was favorably commented upon by Drs. Scott and Noyes.

Dr. Pooley read a paper entitled, "Surgical Treatment of Perityphlitic Abscess."

Third Day.

PREVENTION OF SYPHILIS.

After reading the minutes of the previous day, and attending to some miscellaneous business, Dr. Muscroft read a voluntary paper on "The Prevention of the Spread of Syphilis." This paper was warmly discussed, some thinking we had all the laws necessary to control the spread of this disease, so far as it could

be controlled; others that we needed stringent laws, etc., etc. Paper referred to Publication Committee.

Dr. Morris read a paper on the "Use of Hydrate of Chloral in Puerperal Convulsions." The time growing short this paper was not discussed, but referred to proper committee.

EXPERT TESTIMONY.

Dr. Phillips offered the following resolutions:

Whereas, It has become a very prevalent custom, throughout the several counties of the State of Ohio, to subpœna physicians and surgeons to give testimony as experts in courts of law; and

Whereas, There does not appear to be any provision upon our statute books to make proper compensation for such services; therefore

Resolved, That we hold that our professional opinions are our own, often obtained by great labor and expense, and if considered of value to the State as to parties in civil actions, ought to be paid for. 2d. That a committee of ——— be appointed to the Society to memorialize the Legislature of this State to enact some statutory provisions to correct this evil, and do justice to the medical profession upon this subject.

The discussion of these resolutions evinced the fact that it would be better to modify the second resolution so that it read as follows:

"That a committee of three be appointed to investigate and obtain the legal facts pertaining to the subject, and report at the next meeting of the Society, and recommend a plan of action."

Dr. Pooley offered the following, which was adopted:

Resolved, That the committee of three already appointed to inquire into the rights of expert witnesses be instructed to report, at the next meeting of this Society, a draft of a bill for approval for the protection of physicians in suits for malpractice.

After some further miscellaneous business the Society adjourned to meet at Columbus, Tuesday, May 20, 1878, at 2 o'clock P.M.

This meeting of the Society will long be remembered as a laborious one. Besides the many warm and interesting discussions had on the various reports and papers, a vast amount of miscellaneous business was transacted, and all went away feeling they had profited by being present.

ASSOCIATION OF THE PHYSICIANS FOR IDIOTS.

The Association of Medical Officers of the American Institutions for Idiots met this year at Columbus, in the Ohio State School for Idiots. There, amidst 340 pupils, who were often visited, or brought in the council chamber in support of theories advanced during the discussion, the members held a protracted meeting of four days, in which rose questions of great interest.

Dr. Edward Seguin, President of the Association, read a paper on

THREE VARIETIES OF SENSORIAL IDIOCY;

that is, of idiocy in which the arrest of mental development is due to imperfections of the nerves and ganglia transmitters of impressions, rather than to the paucity of convolutions or other alterations of the hemispheres.

Dr. H. B. Wilbur, Superintendent of the mother institution of this country, read a paper on

GENERAL CLASSIFICATION OF IDIOTS,

the value of which was enhanced by the comparison of his ideas with those developed in the work of Dr. William W. Ireland, Superintendent of the Larbert Scottish Institution for Idiots—a volume which contains, among many matters of interest, the classification of this learned observer.

There was something like piquancy in the presentation by Madam Brown (of the private institution of Barre, Mass.) of a paper on the influence of the unhappy impressions of a mother upon her child during pregnancy and lactation, just after her husband, Dr. George Brown (of the same establishment) had read another on the influence of heredity in the production of idiocy. The same ground was viewed from a feminine and masculine standpoint. Both writers, traversing an almost untrodden field of etiology, brought out the points more familiar to them; the man, those which his mind could trace; the woman, those which touch her great sympathetic; an operation defined by men—who perhaps do not know better—as reflex action; a definition which shows already signs of decadence, by being served up *à toutes sauces*.

The great interest of the meeting was concentrated on the paper of Dr. Isaac Kerlin, on

THE ORGANIZATION OF INSTITUTIONS FOR IDIOTS.

It will appear to better advantage in print than when cut up in shreds by the teeth of discussion. It is to be approved without reserve as the expression of Dr. K.'s experience in organizing the Pennsylvania Training-School for Idiots; but it could not have been accepted as the expression of the experience of other older or younger organizers. These creators of institutions for idiots in this country did not find the wants of all the States alike in this respect, nor the mind of the people prepared to accept this uniformity of organization. The majority believed that this uniformity can be reached only through many more experiments. They point out the grievous fault committed by different public charities, and cast in incorrigible forms and structures immature ideas which too soon become dwarfed and crippled; and they want to spare this shame to the young and vigorous undertaking of improving idiots.

Through all these objections, the paper of the vigorous manager of the school of Media, though denied the honor of representing the views of the Association as a whole, has been accepted, and will be published in the *Transactions* of the Society, where it will take for this country the place occupied in England by the *Agenda* of Sir Charles Trevelyan. It will remain the basis of the coming discussion of the great questions, hitherto latent, regarding charitable asylums for children born maimed in their mind. In this direction alone the physicians for idiots can render great services. In the scientific direction their work is far more promising than that of the alienists. The physician for idiots will soon be conceded the right to study the concordance of the native deficiencies of structure with the native deficiencies of function which he has had opportunities to record; whereas the alienist too often finds behind the crazied functions no organic alterations, or such ones as may be results, not causes, of the *mens demens*.

The Ohio State institution realizes the latest improvements in buildings, teaching, training, and husbandry. The hospitality of Madam Doren was earnest and profuse, at the same time that the children had an abundant food, and milk three times a day. For that service alone sixty cows are kept; the rest of the farming on the Scioto bottom is on the same scale.

The next meeting of the physicians for idiots will be held in the institution of Syracuse, about the time

of the meeting of the American Medical Association at Buffalo. The members of this Association are cordially invited to the meeting of Syracuse.

E. S.

Correspondence.

THE SUCCESSFUL TREATMENT OF HAY FEVER.

To the Editor of The Medical Record.

Sir:—A gentleman from Chicago recently consulted me for what he had supposed to be a persistent cold, but which was really a pretty severe case of hay fever, with the usual signs, sneezing under the provocation of dust, brimstone, matches, and so forth, itching of the nose and eyes, cough, and asthma. He had been troubled for several years, and some years he appeared to have all three forms: the early form, or rose cold; the middle form, or July cold, as I have designated it; and the later form, or autumnal catarrh. Thus he was a sufferer, more or less, for six months out of the twelve. He seriously thought of changing his place of residence to some part of the world where hay fever does not exist, and asked me where he should go. I told him that I believed he could fight it out on this line.

He remained in New York two weeks, transacting some business, and took the treatment I suggested, which consisted in:

1. Central galvanization.

2. A mixture of Fowler's solution and nux vomica, internally (3–5 drops to 10 or 15 drops).

3. The inhalation of a mixture of equal parts of camphor, carbolic acid, and chloroform.

4. Gin and glycerine at night for the asthma and cough.

This plan of treatment is based on the nerve theory of hay fever, and the result so far forth confirms the theory.

The central galvanization gave, as it always or almost always does, immediate relief. The nasal symptoms were quickly helped by the carbolic mixture, the asthma and cough by the gin and glycerine. I should say that I used experimentally, and for the sake of instruction, several other remedies. The spray of bromide of ammonium, as suggested by Dr. Seguin, gave relief, as it usually does, to the throat symptoms. A mixture of chloral and bromide of potassium and ammonium gave relief at night for a number of hours, and is a good suggestion when needed; it also relieves other distressing symptoms of hay fever. The chloral should be used in small doses. Nitrite of amyl gives quick but brief relief in the asthma. On the whole, it has disappointed me in hay fever and asthma.

This patient, whose sufferings had been very great, rapidly recovered. That his recovery was not due to an interval in the disease alone is clear from the fact that the effect of the remedies was felt at once. I advise him to continue the Fowler's solution and nux vomica combination for the present, to provide against relapse or the appearance of the later form in August.

I mention this case as a test and illustration, rather than as an argument. It would be contrary to all my own teachings in regard to hay fever to claim that all cases should be treated alike, or that any specific can be found for it. But the same general *principle* of treatment—tonics and sedatives—applies to all cases. None of the remedies to be used are painful; none even disagreeable. The treatment of hay fever should be pleasant treatment; the time for starvation and caustics and cruel injections has passed by. The overthrow of the parasitic and germ theories of the disease revolutionizes the treatment. Judging from my personal observations, and from correspondence with physicians and sufferers in all parts of the country, I should say that we can now do as much for hay fever as for chills and fever. Electricity alone has broken up attacks; so has arsenic, nux vomica, and Turkish baths.

Under the most successful treatment, there will probably be a tendency to revival of the symptoms under exposure to the worst irritants, such as smoke, dust, cinders; but chills and fever also recurs when the poison is constantly entering the system, even though kept down by quinine and arsenic.

Those who can leave home during the attack, and desire to do so, will find Bethlehem, White Mountains, the best and most attractive relief region for hay fever in the country. Next in order come the Adirondacks, and Marquette, Michigan. Fire Island is the best seacoast place, but the seaside everywhere is untrustworthy; even on the Isles of Shoals the land breezes bring trouble.

Geo. M. Beard.

41 West Twenty-ninth St., July 20th.

DILATABILITY OF THE URETHRA.

To the Editor of The Medical Record.

Sir:—There has been much discussion of late with regard to the degree of dilatability of the urethra. In all this the histological characteristics are not once referred to.

That the urethra is wonderfully dilatable it seems to us preposterous to deny; and yet we hear at the last meeting of the American Medical Association that this point was actually called in question by some whose experience must certainly have been at variance with the views they have expressed.

There are really two divisions to the mucous coat of the urethra, an inner and an outer one, called, as we believe, by Henle, respectively, *tunica mucosa* and *tunica submucosa*. The *tunica mucosa* is about 0.13 mm. thick; the *tunica submucosa* about 0.65 mm. Now, this mucous coat proper has developed in it numerous papillæ which project into the epithelium. In the tissue of which these papillæ are the prolongations we find interspersed a large number of cells, similar to lymph-corpuscles; and in some of Prof. Henle's preparations (at Göttingen) we have remarked that this infiltration is so extreme that the mucous tissue consists only of a delicate network, which is completely filled with cellular bodies, which Prof. Henle, if we remember correctly, denominated *agglomerations of gland substance;* and there can in such cases be observed no distinct line of separation between the cells of the tunic and those of the deeper epithelial layer. All conglomerate tissue is highly distensible; and if there were no actual demonstration of the fact, the dilatability of this coat would be sufficiently established upon an *a priori* basis.

As to the other coat, the *tunica submucosa*, it is nothing more nor less than cavernous tissue formed of a stout venous network. There are also two layers, an outer and an inner one, to the muscular sheath; the former longitudinal, the latter circular. The large vascular and nervous trunks lie outside of the muscular tunic; the arteries, after furnishing numerous branches for this substance, penetrate the mucous tis-

suc and end in the sub-epithelial venous capillaries of the papillæ, as single and double capillary loops. These vessels, increasing rapidly in size, and communicating with one another by numerous anastomoses, constitute a venous plexus proper for the mucous membrane, the general direction of which is parallel to the urethra. Muscular bands, derived from the muscular coat, press in between these large veins. The thickness of the network gradually increases towards the membranous portion of the urethra. The venous branches passing outward diminish in size and number, and take up the veins of the muscular tunic. We have described the urethra about the membranous and prostatic portions, as these are the parts concerned in the operation of lithotomy; and we thus see that Heule is correct in regarding this portion of the urethra as having a cavernous body (vide *Handbuch der systematischen Anatomie des Menschen*, Splanch, p. 365), for it is evident from the explanation given that with an increased influx of blood to the arteries of the urethra, the reflux through the returning veins cannot be proportionate, and that stasis of the surplus blood in the large venous networks must result.

All this clearly demonstrates the fact, that of all canals the urethra is formed of most dilatable structure; and, if any one will take the time and pains to test this upon the cadaver, he will find that the facts will fully bear out the histological characteristics of the canal.

T. O. SUMMERS, M.D.

NASHVILLE, TENN.

SHORTENING IN FRACTURES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the report of the proceedings of the American Medical Association, held at Chicago last month, contained in THE MEDICAL RECORD for June 23, 1877, it is said that on the third day of the sessions of the Surgical Section (Thursday), and immediately after the reading of a paper by Dr. Jones, of Chicago, on Otology, "Dr. Lewis A. Sayre, of New York, rose to a question of privilege, and entered his protest against the resolution adopted by the Section on Tuesday, to the effect that shortening followed fracture, in spite of any methods of treatment now in use. It was a confession that the profession couldn't properly treat a fracture, and he protested against such a declaration."

I was chairman of the Surgical Section, and was not out of my place from the opening to the close of its sessions. Dr. Sayre addressed the Section on several occasions in reference to other matters, but he never "rose to a question of privilege"—he never entered a "protest"—and never said a word upon the question of the results of treatment in fractures of the long bones.

This is a simple matter of fact, attested by the Secretary, Dr. Owens, and which I am sure Dr. Sayre, who is now in Europe, will thank me for correcting.

Very truly yours,

FRANK H. HAMILTON.

EXTERNAL PRESSURE IN DELAYED LABORS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—While reading the "Transactions of the Cincinnati Obstetrical Society," as published in the *Am. Jour. Obstetrics* for July, 1877, I was reminded of a case in my own practice where external pressure, after Von Ritgen's method, was favorably employed. The case is as follows: Mrs. W., aged 35, third pregnancy, called me about 9 A.M., April 22d; complained of pains most of the night from midnight; found the os quite well dilated; membranes ruptured about 10 A.M., and at 11.15 A.M. was delivered of a small male child. A few moments' time sufficient to determine the existence of a second child to come.

All pains ceased upon the birth of the first one, nor could they be provoked by a liberal administration of fl. ext. ergota, borate soda, or exercise. After waiting till 3 P.M., I resorted to interrupted external pressure, and had the satisfaction of delivering the second child (female) at 4 P.M. Both placentas soon followed with only slight hemorrhage. The second child lived but a few minutes.

The mother made a good recovery. Query: Did ergot injure the child? I think it did.

I believe the advantages referred to by Dr. McMechan as set forth by Abegg, of Dantzig (see Transactions of Cin. Obs. Soc.), are real, not imaginary, and that many tedious labors may be materially shortened by a judicious employment of external pressure.

If you deem this note worthy of publication in THE RECORD you may use it.

Respectfully yours,

D. J. CHITTENDEN, M.D.

MCINTYRE, PA., July 18, 1877.

THE SO-CALLED MILK FEVER AND ANTISEPTIC MIDWIFERY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In THE RECORD for June 2, 1877, there appears an article by Blair D. Taylor, M.D., on the above named subject, in which he gives his experience in the use of antiseptic injections after delivery as a preventive of the so-called milk fever. He claims that the fever, usually observed at or about the time the milk is secreted, is not due to that process, as was formerly taught, and is now taught, I think, by the majority of obstetricians, but that it is due to the absorption of decomposed *débris*, etc., in the uterus and vagina through the lacerations and abrasions necessarily produced by the act of delivery. This fever, then, must be a form of septic poisoning, and can be prevented by antiseptic means. Dr. Taylor states that he has never observed any fever in any case where injection of a weak solution of carbolic or salicylic acid has been used. I wish to state that my experience during the past two and one-half years in this matter fully agrees with the statements made by Dr. Taylor. My much-respected teacher, Prof. E. S. Dunster, used to teach this view, and I presume does so now. I can go a little further than Dr. Taylor, and say that when only simple tepid water was injected, within six hours after the birth of the placenta, and continued, I have never seen a temperature above 99°.

It is my rule to order tepid water to be used twice a day for a week, commencing about six hours after the placenta has been delivered. If any fœtor is observed in the discharges, carbolic acid, salicylic acid or Condy's fluid is added to the water in small quantities.

Now and then I have found a patient who will object to the use of these injections, but in no case where they have been faithfully used have I heard patient express any other than much comfort from their use; they will, in fact, ask to have them continued.

Respectfully yours,

URANUS O. B. WINGATE, M.D.

WELLESLEY, MASS., July 27, 1877.

A NEW BANDAGE ROLLING MACHINE.

To the Editor of The Medical Record.

Dear Sir:—In a conversation with Dr. Frank H. Hamilton. the evening of June 6, 1877, in Chicago, he remarked that one of the greatest drawbacks to the use of the plaster-of-Paris bandage in the treatment of fractures was the length of time occupied in preparing them. I then described a machine I had constructed for me for that purpose by my able friend Frederick N. Elliott, D.D.S., in 1873.

The machine consists of a second-hand sewing-machine stand, with the treadle arranged so as to bring the fly-wheel and pulley to the left. Above the lower pulley is a smaller one, between a forked support that is bolted to the stand. This pulley should be five or six inches above the top of the table, with a screw on the right free end, external to the fork, to fit an ordinary gas-burner. Solder into the end of the gas-burner an hexagonal wire some six inches in length, screw this on the upper pulley and attach a band over the two pulleys, and you have an excellent foot-power bandage-roller, leaving both hands free to manipulate the bandage, which is rolled very rapidly. It is difficult to draw a bandage off a round spindle when wound tightly. To wind a plaster bandage take a small cigar-box and pass two wires parallel to each other, two inches apart, and half an inch from the bottom of the box. Now bolt this box to the table so as to have the wire opposite and parallel to the spindle, between the spindle and the operator, so that the bandage, in passing under both wires as it goes from under the wire nearest the spindle, will make an angle to the plane of the table of about forty-five degrees.

When rolling the bandage, which should be of the flimsiest flannel, let it pass under both wires and on the spindle, so that in rolling it will pass under instead of over the spindle. By keeping the box full of plaster, and not rolling the bandage too tight, the proper amount of plaster is rubbed in. The reason for having two wires for the bandage to pass under is that, as it passes over the edge of the box and under the first wire, all wrinkles are smoothed out and the meshes of the cloth held open better for the reception of the plaster.

The next day Dr. Henry O. Marcy, of Massachusetts, exhibited before the Surgical Section of the American Medical Association a hand plaster-roller, when Dr. Hamilton called on me to describe my apparatus, but not being present in that Section I could not do so, but send you the description.

I only claim the invention of the plaster-rolling attachment in the above machine, as the rest of the credit belongs to Dr. Elliott, and as an ordinary bandage-roller it is superior to any hand machine I have ever seen. Mr. E. T. Dobbins, of the firm of John Wyeth & Brother, of Philadelphia, being in my office the other day, was so pleased with the machine that he said he would have one made as soon as he reached home, as with the hand machines the winding was much slower and required two boys, and this can be managed easily by one.

It is needless for me to say anything in favor of plaster dressings, since Drs. Hamilton, Sayre, Marcy, and others, have written so much better than I could about them. I would especially commend Dr. Henry O. Marcy's article upon Plastic Splints in Surgery, in the June 28, 1877, number of the *Boston Medical and Surgical Journal*.

By fastening a dentist's emery-wheel on a gas-burner with shellac varnish you have an excellent attachment to the machine for sharpening knives, needles, etc.

I remain, very respectfully,

William A. Byrd.

327 Jersey Street, Quincy, Ill., July 12, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department. United States Army, from July 29 to August 4, 1877.

Hall, Wm. R., First Lieut. and Asst. Surgeon. To accompany, until otherwise ordered, the cavalry commanded by Capt. Whipple. S. O. 20, Hdqrs. Dept. of the Columbia, in the field, June 29, 1877.

Buell, J. W., First Lieut. and Asst. Surgeon. Granted leave of absence for one month on surgeon's certificate of disability, with permission to leave limits of the Department. S. O. 137, Dept. of Texas, July 28, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending August 4, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
July 28.....	1	13	43	4	36	28	0
Aug. 4	1	5	36	3	31	22	0

The Late Dr. William E. H. Post.—At a special meeting of the Vaccinating Corps of the Health Department of the City of New York, held July 26, 1877, the following resolutions were adopted:

Whereas, Death has removed from us Dr. William E. H. Post, in the opening of an earnest and useful life,

Resolved, That in his death we have lost a valued and beloved friend, an earnest and efficient associate, and that the profession has lost an able and promising member.

Resolved, That we tender to his family our warmest sympathy in their great affliction.

Resolved, That this expression of our sorrow at his unlooked for death, and testimonial of our appreciation, be forwarded for publication to The Medical Record, of this city, and that a copy be sent to the family of our late fellow-member.

P. B. Wyckoff, M.D., *Chairman*.

W. J. Purcell, M.D., *Secretary*.

A Case of Spina Bifida.—At the Congress of German Surgeons held in Berlin in April last, Prof. Langenbeck presented a boy, twelve years of age, who, when an infant, presented a spina bifida in the lower part of the back. The tumor, which was about as large as the fist, was treated by puncture and injection of iodine. At the present time the only mark of the affection is a small cicatricial depression; the bones have developed, and now close the spinal canal completely.

Boylston Medical Prize Questions.—The Boylston Medical Committee, appointed by the President and Fellows of Harvard University, consists of the following physicians: J. B. S. Jackson, M.D.; D. H. Storer, M.D.; Morrill Wyman, M.D.; Henry J. Bigelow, M.D.; Richard M. Hodges, M.D.; Calvin Ellis, M.D.; Samuel Cabot, M.D. At the annual meeting, held June 4, 1877, it was voted that no dissertation worthy of a prize had been offered on either of the subjects proposed for 1877.

The following are the questions proposed for 1878: 1. Antiseptic Treatment. What are its essential details? How are they best carried out in practical form? 2. Diphtheria. Its causes, diagnosis, and treatment. The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1878, will be entitled to a premium of seventy-five dollars.

Dissertations on the above subjects must be transmitted, post-paid, to J. B. S. Jackson, M.D., Boston, *on or before the first Wednesday in April*, 1878.

The following are the questions proposed for 1879: I. The relation of animal contact to the disease known as hydrophobia. II. Evidence showing that so-called "filth diseases" are not dependent upon "filth." The author of a dissertation considered worthy of a prize on either of the subjects proposed for 1879 will be entitled to a premium of two hundred dollars.

Dissertations on these subjects must be transmitted as above, on or before the first Wednesday in April, 1879.

St. John's Guild.—The floating hospital of St. John's Guild is making its usual summer excursions, and with the usual success. Although it sounds well to the public, there is something more needed than the mere crowding together a number of children for a daily excursion of a few hours.

The American Public Health Association will hold its fifth annual meeting in the city of Chicago, Sept. 23d–25th. An unusually interesting meeting is expected.

Dr. R. L. Parsons has resigned his position as Medical Superintendent of the New York City Lunatic Asylum, to accept a similar position in the Kings County Lunatic Asylum, Flatbush, N. Y.

Medical Degrees for Women.—The Senate of the University of London decided at its last meeting, by a majority of five, not to postpone the admission of women to medical degrees until all the other faculties are open to them.

Rhode Island Medical Society.—At the last annual meeting of this Society, the following officers were elected for the ensuing year: *President*, Dr. Charles H. Fisher, North Scituate; *Vice-President*, Drs. Edward T. Casswell and Geo. P. P. Baker, Providence; *Recording Secretary*, Dr. W. E. Anthony, Providence; and *Corresponding Secretary*, Dr. E. M. Harris.

Death from Anæsthetics.—A death recently occurred at the East Suffolk Hospital (London) during the administration of bichloride of methylene and ether for the removal of diseased bone from the leg of a patient, aged fifty-six, who was suffering from syphilitic caries. Death occurred during a convulsion. For some unexplained reason, the coroner forbade a post-mortem, and consequently the immediate cause of death was not ascertained.

Westchester Co. (N. Y.) Medical Society.—The Seventy-Ninth Annual Meeting of the Westchester Co. Medical Society was held at White Plains, N. Y., June 26th. Papers were read as follows: Lead Poisoning, by Dr. Chapman; Life as a Source of Disease, by the retiring President, Dr. Sawyer; Fractures of Spine, by Z. Edward Lewis; Modern Facilities for Early Diagnosis of Disease, by Dr. Helm. The annual election resulted as follows: For President, Isaac T. Collins, M.D.; for Vice-President, H. Ernest Schmid, M.D.; for Secretary, J. F. Chapman, M.D.; for Treasurer, J. T. Wood, M.D.; Censors, Drs. Helm, Linson, and Pelton. Essayists, Drs. Schmid, Coutant, and Horton; Delegates to Amer. Med. Association, Buffalo, 1878, Drs. Sawyer, Wood, Parsons, Schmid, and Coutant. The Society adjourned at 4 o'clock to meet at Rye Beach, Tuesday, Oct. 16, 1877.

The Russian Army.—The medico-sanitary arrangements of the Russian army are said to be very complete.

Capsicum in Alcoholism.—Dr. C. A. Owens (*Lancet*) finds capsicum very useful in alcoholism. He uses it in combination with nux vomica and dilute nitrohydrochloric acid, in an infusion of gentian. The tincture is a good form to give the remedy. The prescription is particularly valuable in the treatmentof drunkard's dyspepsia, morning sickness, faintness, etc.

Careless Ovariotomy.—A case of rather peculiar nature which occurred at the Alfred Hospital, Melbourne, has given rise to considerable discussion among the profession at the antipodes. It was that of a woman operated on in the hospital for ovarian tumor, and in whose abdomen after death a *sponge* and a pair of small *bull-dog forceps* were found. The *Australian Medical Journal*, No. 187, reprodnces the report of the hospital committee, and gives a long account of the inquest held on the exhumed body of the patient.

Female Clinical Instruction.—The Royal Free Hospital is to administer to the clinical wants of the Women's Medical School of London.

Trichinosis.—One hundred and seventy-one soldiers have been suffering from trichinosis at Dudenhofen, Germany.

Home Hospitals.—The British medical press is agitating the feasibility of establishing hospitals exclusively for pay patients.

Small-Pox in London.—At last accounts the weekly mortality from small-pox in London was 55.

The Hospital Sunday Fund.—The Hospital Sunday Fund in London lately reached £20,000, and much exceeds the amount received within the same time in a previous year.

Calcification of Tuberculosis of Lung, and the Risks of the Mutual Life Insurance Company of New York.—Dr. G. S. Winston, Medical Superintendent of the Mutual Life Ins. Co., in regard to Dr. Both's article (July 21), writes: "So far as he supports his statements by references to the 'New York Mutual' as having insured, subsequent to his treatment, Messrs. B. J. Baker and W. G. Craibe, he is laboring under a misapprehension. No such parties were ever insured in this company. Please make this public, as the Mutual Life Insurance Co. of New York, popularly called the 'New York Mutual,' never under any circumstances insures such risks."

Ovariotomy during Pregnancy.—Mr. Spencer Wells, of London, has performed ovariotomy nine times during pregnancy, and with but one fatal result.

Dr. Edward Warren (Bey), a prominent American physician of Paris, has just been created a Knight of the Order of Isabel the Catholic, as a recognition of the professional skill displayed by him in the successful treatment of some Spanish personages of high position.

Original Lectures.

GENERAL BRONCHITIS — BRONCHIAL HEMORRHAGE — GENERAL CARDIAC HYPERTROPHY AND DILATATION — PNEUMONIA AT THE APEX.

A CLINICAL LECTURE DELIVERED AT BELLEVUE HOSPITAL,

By ALFRED L. LOOMIS, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—This man, æt. 35 years, a marble-cutter by trade, was admitted to the hospital to-day. On account of the stupidity present, apparently in consequence of the disease, only an imperfect history of his case can be obtained. The most that can be learned is that about ten days ago he was taken with spitting or vomiting of blood, not certain which, and the hemorrhage has continued up to the present date. He has been in the habit of drinking lager-beer freely. He is not emaciated, his face is somewhat puffy, and his feet and legs are moderately œdematous. His abdomen presents about the normal appearance, and the superficial veins are not enlarged. The apex beat of the heart is so diffused and indistinct that it cannot be located by palpation. The area of cardiac dulness is normal. There is tenderness in the epigastrium. The spleen is of normal size. The area of hepatic dulness is normal. There is some dulness upon percussion over the right lung, but it is not sufficiently marked to be regarded as abnormal. On auscultation sibilant and sonorous râles are heard over the anterior portion of the chest, with prolonged expiration.

Respiratory murmur is heard over the entire chest posteriorly, although from the spine of the scapula downwards there is increasing dulness upon percussion, and at the bottom of the pleural cavity on both sides there is flatness.

Sonorous and the finer sibilant râles are also heard over the upper portion of the chest.

Mucous râles are heard over the entire chest, both anteriorly and posteriorly. There is no cardiac murmur. Nowhere over the chest is the percussion sound emphysematous. The pulse is 72, and the temperature normal.

The urine is light colored, and contains albumen in considerable quantity. It has not been examined for casts. He has not had a chill so far as can be ascertained. There is a marked tendency to stupor.

There are three important points which have been obtained from the history and our examination:

1. From the history we learn that there has been hemorrhage, and probably it was hæmoptysis.

2. From the examination we learn that there is œdema of the feet, legs, and face.

3. There is a feeble heart-sound, and the contractions are so weak that the apex beat cannot be located by palpation. There is no evidence of enlargement of the heart.

From the evidence obtained by physical examination there can be no question but that this man has general bronchitis.

There is probably but little doubt that he is also suffering from Bright's disease, although examination in that direction must be continued. Granting that these two diseases are present, do they explain all the symptoms, and constitute a complete diagnosis?

There is probably some pulmonary œdema at the lower portion of the lungs posteriorly, although there are no crackling sounds to be heard.

I think it is quite possible to have pulmonary œdema affecting the intervesicular tissue without giving rise to râles, but simply to dulness upon percussion. Probably such is not infrequently the case in connection with Bright's disease, or any disease in which there is an enfeebled capillary circulation.

But how is it possible to have bronchial hemorrhage with Bright's disease, or without the physical signs of pulmonary consolidation, or valvular disease of the heart? In this case, I think, the bronchial hemorrhage can be accounted for by reference to one point in the history, namely, he is a marble-cutter, and has followed that occupation during the last twelve or fourteen years. In that class of persons bronchial hemorrhage is quite apt to occur when some disturbance of the circulation ensues, such as arises from slight attacks of bronchitis. The occurrence of such hemorrhage does not indicate the necessary development of phthisis, but such persons are very likely to develop phthisis of the fibroid variety, because when the bronchitis is once established in those engaged in this and kindred occupations it is persistent; they do not usually recover from it.

The prognosis in this case is rendered more unfavorable than it would otherwise be by the kidney complication. The fact, however, that there is general bronchitis, accompanied with hemorrhage, leads almost certainly to the conclusion that the bronchitis will be a permanent one if he continues at the same kind of work. He has doubtless had more or less cough with expectoration for some time, and that will continue. After a while he will have another attack of bronchitis, and farther changes of a fibrous character will take place in the bronchial tubes, ultimately will extend into the lung substance, and after years of such persistent bronchitis, with repeated attacks of a more acute character, fibrous induration of the lungs becomes marked, and he has that form of phthisis known as fibrous phthisis. In all probability this man will not live until such extensive changes have taken place in the lungs, for the condition of his kidney is probably such as will soon bring about a fatal termination. It seems probable that it is a case in which the kidney disease had had considerable duration.

The treatment should be first directed to the relief of the symptoms depending upon the Bright's disease. In addition, it is well to apply dry cups over the chest. If he dies within a week or ten days he will probably die with œdema of the lungs and brain. He would be more likely to have pulmonary œdema did he not have the bronchitis. I do not think that the bronchitis in this case is secondary to the Bright's disease. Bronchitis secondary to Bright's disease is not an infrequent occurrence, but occurring under those circumstances it has a character differing from that which is present in this case; there are more moist sounds than we have here. In this case the physical signs indicate that we have to deal with a condition in which there is marked congestion of the bronchial tubes, without that abundance of secretion which so often occurs in connection with the bronchitis accompanying Bright's disease. In the bronchitis secondary to Bright's disease, there is usually a profuse liquid secretion. In this case we have, for the most part, the dry râles indicating tumefaction of the mucous membrane of the bronchial tubes as the result of congestion. The attending hemorrhage shows that this congestion has been considerable, therefore has a local cause, and is not due to Bright's disease.

GENERAL CARDIAC HYPERTROPHY AND DILATATION—PLEURISY WITH EFFUSION — PHYSICAL SIGNS OF PNEUMONIA WITHOUT THE DISEASE.

This patient, gentlemen, gives us the following history: Previous to twelve months ago she supposed herself to be in perfect health, but at that date she began to suffer particularly from palpitation of the heart, and soon afterwards her feet began to swell. She did not suffer from pain in the back at that time, nor did she have headache or nausea. Her urine was passed in diminished quantity, and, as she says, was "heavy looking." She has always been temperate, and has never had rheumatism. She has had cough during the last two weeks, and has suffered somewhat from pain in the precordium; she has never spit blood. She has suffered from palpitation more or less for a number of years, but it became a distressing symptom twelve months ago, and she was obliged to leave her work because of it and shortness of breath. She is not able to tell us whether there was any swelling of the face at the time the œdema of the feet first appeared. There is no œdema of the feet at the present time. The urine contains a small quantity of albumen.

On *inspection*, it will be noticed that there is a certain amount of blueness of the lips, and the capillary circulation in the skin is somewhat interfered with. Respiration is rather hurried. There is a heaving motion over the entire anterior portion of the chest, and the apex-beat is visibly diffused over a great area. There is a distinct epigastric pulsation.

On *percussion*, it is found that the area of dulness in the precordial region is very much increased; extending from an inch to the right of the right border of the sternum over to two and a half or three inches to the left of the left nipple.

On *auscultation*, it is to be noticed that there is loss of rhythm in the cardiac pulsations; one in about every four or five beats is lost, and there is also great irregularity of the heart's action. The sound which is heard over the precordium is rather continuous; it is not difficult to distinguish the first from the second sounds, but it is difficult to separate the one from the other. There is a murmur present, but you will not be able to place it with either sound of the heart. At times the murmur is lost entirely in the confusion of the heart's action. When present, it is difficult to say that it is connected with the first or the sound of the heart, but it has a blowing character, which suggests that it comes with regurgitation. Another thing to be noticed in auscultating the precordial spaces is the entire absence of the respiratory murmur.

From these physical signs the question seems to be settled that there is hypertrophy of the right and left side of the heart, with dilatation of the ventricles and the aorta. But why do we not hear the murmur of them in either regurgitation or obstruction? I feel almost positive that there is regurgitation at the aortic and also at the mitral orifice, for there are times when I am confident that both an aortic and mitral murmur can be heard. When the patient gets excited the murmur is temporarily lost, and that is not an uncommon occurrence in connection with heart disease, when the disease is as extensive as it is here. If for any reason the action of the heart becomes a little irregular, the distinctness of the murmur is lost to such an extent as to make diagnosis difficult, if not impossible. In such a case, however, you may take it almost for granted that there is regurgitation at the aortic, and also at the mitral orifice. As a general statement it may be said that the more extensive the disease, the less distinct are the signs of valvular lesions of the heart. When the heart is extensively diseased in the way of dilatation and hypertrophy, and becomes excited, for instance by the presence of a pneumonia, while the pneumonia continues the signs of valvular lesions will be absent, simply because the heart is beating more rapidly than usual. So it is when the heart's action becomes accelerated from any cause, there may be temporary absence of the valvular murmur. It has been maintained by some observers that simple disturbance of the pulmonary circulation is sufficient to cause loss of murmurs; but it seems to me, and I think the majority of observers entertain the same opinion, that the loss of murmur under these circumstances is due to increased rapidity of the heart's action, and not to pulmonary obstruction.

We may reasonably expect in this case to find some evidences of pulmonary œdema. On examining the lungs posteriorly, however, we find no special evidence of such trouble, but there is found a peculiar condition which perhaps is worthy of special notice.

As may be noticed, there is flatness upon percussion in the infra-scapular space on the left side. It is a noteworthy fact that, when pericarditis occurs with such an amount of effusion as to fully distend the pericardium, the physical signs of pneumonia in the second stage, dulness on percussion and bronchial breathing, will be present on the left side posteriorly in a great many instances in which there is evidently no pneumonia whatever.

The idea which Dr. Scott (student) has advanced with reference to explaining these physical signs by pressure of the heart upon the lung, thus giving rise to pulmonary changes, is one which has been entertained by others, but pressure will give rise to evidence of pneumonia as shown by bronchial breathing only; the dulness upon percussion does not appear to bear out the diagnosis. In this case, however, percussion gives evidence of something which encroaches upon the pleural cavity in such a manner as to produce flatness, and as we auscultate it is found that all respiratory murmur and voice sounds below the lower border of the scapula are abolished. Formerly I regarded the bronchial breathing and dulness upon percussion which were developed upon the left side posteriorly during the progress of a case of pericarditis, with a large quantity of serous effusion, as evidence of pneumonia in the second stage; but I have come to believe that these physical signs may be present under those circumstances, and in that situation, without the presence of pneumonia. I believe so for the reason that, as the effusion accompanying the pericarditis disappears, the bronchial breathing and dulness upon percussion disappears, and without any râles being present at any time during the progress of the case.

It is well for you to make a note of this fact, as it may save you from a good deal of perplexity at some future date.

In the case before us, we obtain the normal respiratory murmur down to a point corresponding to the lower border of the scapula, but below that point there is flatness upon percussion, absence of respiratory murmur, and the presence of other physical signs, indicating fluid in the pleural cavity. The question can be settled positively by the introduction of an exploring needle.

[The house physician, Dr. Morris, stated that the chest had been aspirated, and bloody serum obtained.]

But you may ask the question, why should this woman have heart disease, inasmuch as she gives no history of having had rheumatism? Endocarditis

may occur independent of rheumatism; it may occur in connection with Bright's disease or the infectious fevers. It does not occur often, independent of rheumatism, but such an occurrence is not an impossibility.

In this case, the kidney disease, if present, is probably due to chronic congestion.

This is a heart which, probably, will fail to respond to digitalis, for the reason that the dilatation is secondary to the hypertrophy.

The insufficiency upon the right side of the heart is that which gives rise to the greatest danger in this case.

PNEUMONIA AT THE APEX ASSOCIATED WITH ALCOHOLISMUS—QUESTION WITH REFERENCE TO PROGNOSIS.

The patient before us gives us the following history, which has one or two points of interest:

Female, æt. 30 years; intemperate. Three weeks ago, when considerably under the influence of liquor, she got her feet wet. The next day she had "a kind of chill," but suffered from pain nowhere, except under the sternum. She took to her bed, and was kept there, because of the headache, nausea, pain in the chest, and general feeling of discomfort. About two weeks subsequently she had a chill, followed by fever, and soon after began to cough and expectorate. During the past four or five days she has been expectorating a sticky, semi-opaque material, having a creamy-yellow color, characteristic of pneumonia in many cases. It has not the ordinary brick-dust color. Her countenance, as you see, is flushed; her tongue is flabby, red at the edge, coated in the centre, and brown and dry, and there are sordes on the lips and teeth. Her pulse is regular, full, easily compressed, and numbers 105. The temperature has ranged between 101½° F. and 103° F., and the respirations are 40. There is no delirium.

From the cough, the character of the expectoration, and the rapidity of the respiration, we turn our attention to the lungs, with the expectation of finding evidence of pneumonia.

On *palpation* it is found that vocal fremitus is absent upon both sides of the chest at the lower and posterior portion, the voice not being sufficiently strong to develop it.

On *percussion* there is slight dulness over the lower portion of the right lung, but more marked over the scapula.

On *auscultation* vesicular respiration is heard all over the lower posterior portion of both lungs, and there are no râles. When the apex of the lung is reached, over the region where the dulness upon percussion is most marked, bronchial breathing is distinct.

Over the anterior portion of the chest marked dulness upon percussion is found in the infra-clavicular region upon the right side, and bronchial breathing is distinct down to the nipple. As we listen close under the breast, some crackling sounds, short and sharp, are heard at the end of inspiration and commencement of expiration.

They are probably subcrepitant râles and pleuritic friction-sounds.

From the history of this case and the physical examination, we reach the conclusion that this patient is suffering from pneumonia affecting the apex of the right lung. It is not a case of pleuro-pneumonia, because pleurisy has not preceded the pneumonia. The ordinary history of pleurisy is absent, while the ordinary history of pneumonia is present. Again, she has not sufficient pleurisy to give the disease the name pleuro-pneumonia. In a case of pleuro-pneumonia, the pleurisy is a prominent element and precedes the development of the pneumonia. We will, therefore, call this a case of pneumonia.

Within the last twelve hours the temperature has fallen to 101° F., which indicates that the disease is progressing favorably. The pneumonia is in the third stage, has had sufficient duration to be on the way towards recovery, and the general appearance of the patient is such as indicates approaching convalescence.

Let us suppose, however, that at the end of the tenth, or twelfth, or fourteenth day of the disease some remedy is administered for the purpose of controlling the temperature, does the fact that the temperature declines a few hours after the administration of the remedy prove that it has done so because of the influence of the agent employed? It does not. In this case, for example, the temperature has fallen within the past twenty-four hours, and although quinine was given for the purpose of lowering it, we must also take into consideration the fact that the disease had reached a point where we might reasonably expect a decline in temperature *without* treatment.

Fifteen grains of quinine were administered last evening, and this morning the temperature was found to be 101° F. instead of 103½° F., the height before the exhibition of the remedy; but it is altogether probable that the quinine merely assisted the decline. Again, the dose administered was not of sufficient size to produce a fall in temperature.

We have here a woman with intemperate habits, a pneumonia at the apex of the lung and in the third stage, and what is the prognosis? Is there any more danger on account of the pneumonia being at the apex instead of at the base of the lung?

In a very large proportion of cases the pneumonia of drunkards will be found at the apex, and if they recover at all, they recover about as rapidly as those cases in which the disease is found at the base. It is not so much the situation of the pneumonia in this class of cases as it is the amount of pleurisy that affects the prognosis. In proportion to the amount of pleurisy present, I expect the resolution to be rapid or slow. If a large amount of pleurisy accompanies the pneumonia, complete resolution is a very fortunate occurrence, and, perhaps, in the great majority of cases, does not occur.

On the other hand, where pneumonia occurs at the apex in persons whose habits of life have been correct, there is always a suspicion that there is some condition behind the pneumonia which will favor phthisical development.

[At the clinic the following week, it was reported that resolution of the pneumonia was nearly complete and the general condition of the patient rapidly improving.]

GROWTH OF THE HUMAN HAIR AFTER DEATH.—Dr. Caldwell, of Iowa, states that in 1862 he was present at the exhumation of a body which had been buried two years before. The coffin had sprung open at the joints, and the hair protruded through the openings. On opening the coffin, the hair of the head was found to measure eighteen inches, the whiskers eight inches, and the hair on the breast five to six inches. The man had been shaved before being buried. In 1847, a similar circumstance occurred in Mercer County, Pa. In digging a grave, the workmen came upon the skeleton of a man that had been buried ten years. The hair was as firm as during life, and had grown to a length of eleven or twelve inches.

Original Communications.

CASE OF FISTULA VESICO-UMBILICALIS CONGENITA—PATENT URACHUS.

By A. ROSE, M.D.,

NEW YORK.

The urachus is a plainly visible stem which connects the sac formed by the allantois with the anterior wall of the rectum. About the second month of the fœtal life its posterior portion is enlarged and becomes the bladder, the upper part of which is continued into the umbilical cord by means of a tubular canal, which is still called the urachus, remaining for some time pervious, and then becoming obliterated. This tubular canal tapers off, while the bladder is enlarged into a receptacle, although it retains its spindle-shaped form and passes into the urachus without any particular definition. The anterior portion of the urachus is that part which forms the above-mentioned canal; it is obliterated in the adult when it becomes a fibro-muscular cord, and forms the so-called ligamentum suspensorium—seu medium—vesicæ.

Already at the end of the 17th century Peyer maintained, in opposition to Caspar Bauhin and Regner de Graaf, that the urachus was pervious during the fœtal period. J. G. Walter (*Annot. acad. Berol.*, 1775) tried to prove that the urachus was formed by a continuation of the inner membrane of the bladder, being in the healthy and natural state a pervious canal at every period of life and in both sexes, which admits of the passage of a small probe or mercury. Ruysch and Hildebrandt also agree as to its being a hollow canal, while Meckel and Arnold claim that it is impervious and only occasionally found hollow. According to other investigators it is obliterated either towards the end of gestation or soon after birth. E. H. Weber believes it to be a continuation of the vesicular mucous membrane. Huschke, however, thinks the urachus is connected with the bladder only by the muscular layer of the latter.

Luschka's recent anatomical and microscopical investigations of the urachus on male adult bodies demonstrate that, at least in a majority of individuals, it is at least partially hollow, being lined, as claimed by Walter, by mucous membrane, although it does not always communicate with the bladder. In many cases he found the mucous membrane of the bladder to continue into a tubular prolongation of the base of the bladder, about 2 mm. thick. A small opening, as if produced by the insertion of a needle, can be perceived within the bladder; usually, however, there is only a small indentation or no trace whatsoever visible. He also observed that, wherever a cavity existed, its calibre was not of equal size, but crinkled and nodulated, resembling acinous glands. Some of these nodules are tubular, while others are pediculated, thus forming small cysts. A partial constriction of the canal itself causes the formation of cysts, reducing the rest of the canal to a threadlike size. These cysts are usually very small, but sometimes they attain the size of a millet or pea. The abnormal permeability of the urachus is mentioned in several works of pathological anatomy (Foerster, Rokitansky, Voigtel, Klebs, and others). In many cases reported it was only proved by the escape of urine through the umbilicus without making any further investigation about the condition of the urachus. In other cases a considerable widening of the urachus has been ascertained. Mention is also made of the existence of urinary calculi in the urachus, and cases are also reported of acquired permeability of the urachus. Such a case is described only recently by M. Jacoby, of Bromberg (*Berlin. klin. Wochenschrift*, 1877, No. 15). In this case retention of urine, brought about by a stricture of the urethra, caused the formation of a vesico-umbilical fistule.

The most remarkable and instructive cases are, in my opinion, those communicated by Dr. C. E. E. Hoffmann, of Basel. Believing that his valuable essay (Carl Ernst Emil Hoffmann, "Zur pathologisch anatomischen Veränderung des Harnstranges." *Archiv der Heilkunde*, Leipzig, 1870, pp. 373-390) is not yet known in the current English literature, I shall here give a short synopsis for the purpose of directing attention to the exceedingly valuable original:

The first case of Hoffmann is reported in connection with one observed by Meckel, who found in a ripe embryo of a sow a sac-like enlargement of the urachus one inch in breadth and width, distant about four inches from the umbilicus. Hoffmann's specimen comes from a grown hog, appears like a sac constricted in the middle, thus dividing into two equal portions. On being inflated, both halves appear to be of an elliptical shape. The lower portion measures, while inflated, 31 centimetres in length, and 22 centimetres in diameter; the upper portion is 25 centimetres long and 24 centimetres broad. Both portions communicate with each other through an opening 9 centimetres in width. The upper portion was closed towards the umbilicus; the entire sac was situated between urethra and umbilicus.

The following is the second case: Herman R., a student of divinity, born 1842, had from his youth a large abdomen, creating a good deal of laughter among his schoolmates on this account. Thinking adiposity to be the cause of it, he tried to reduce it by fasting, but without avail. Since May, 1866 (in his 24th year), his abdomen increased considerably in size, followed by shortness of breathing, which latter circumstance caused his father and brother (both being physicians) to examine him thoroughly, when fluctuation was plainly revealed in and around the umbilical region. As the dyspnœa had in the meantime increased, a puncture was made in August, 1866. Fever, vomiting, and abdominal pains ensued. A thin, reddish-yellow liquid was emptied. No account was kept of the quantity.

Afterwards the patient was subject, from time to time, to attacks of fainting, but enjoyed otherwise good health until 1868, when the abdomen again increased in size. He entered the hospital on June 30, 1868.

His general appearance is cachectic; suffers greatly from dyspnœa. On August 25th a puncture was made, and about 6 litres of a bloody liquid emptied, which contained a good deal of cholesterine, red globules, and detritus. A third puncture was made on September 12th, when 18¼ litres of liquid came away. 17 litres escaped at the fourth puncture, November 4th. The last puncture was made May 12, 1869, when 6 litres of liquid were obtained. The post-mortem examination was made on the 18th of May, 1869. Fifty litres of liquid were found within the sac, which filled the larger portion of the peritoneal cavity.

The contents of this sac weighed about 100 pounds, while the body itself weighed, previous to the section, only 192 pounds. Its external side is lined by a serous membrane of the peritoneum. This is connected

internally with a firm layer of fibro-cellular tissue, abounding in elastic fibres, which is lined by several layers of well-developed pavement epithelium. The bladder is contracted, and contains but a small quantity of yellowish urine. The mucous membrane presents a pale appearance. The urachus is completely closed at its vesicular termination; along its course towards the umbilicus an exceedingly small-sized cavity was found. Near the umbilicus the fibrous tissue of the urachus passed into the subperitoneal layer of the anterior abdominal wall.

The third case was that of a post-office employé, who died of acute peritonitis, May, 1869, at the age of 28 years. At birth the umbilicus was still open; its closure was effected in the third year by the application of caustics. In 1868 an induration of the size of a goose's egg was observed about midway between umbilicus and symphysis pubis. This gradually increased and was punctured several times, followed by the escape of urine and a purulent bloody liquid. The patient grew rapidly thin, losing 25 pounds in 4 months. On January 31, 1869, he weighed only 88 pounds. On account of objections raised by the family of deceased, only an incomplete post-mortem examination could be obtained. The attending physician removed the entire tumor, with the bladder, and sent it to Dr. Hoffmann for further examination. A very small opening was found in the centre of the navel communication, with a sac which extended to the base of the bladder, measuring 18 centimetres in length, and, at its middle portion, 2.5 centimetres in width. The cavity opens into the bladder through an opening 3.5 centimetres wide, which is found to have undergone carcinomatous degeneration.

The following cases occurred in my own practice:

Charles King, 11 years of age, was brought to my office in May, 1876, by his grandmother. She informed me that she was present at the birth of the child, and observed in the region of the umbilicus a roundish, whitish swelling, of the size and shape of a duck's egg, which was easily reduced and kept so by means of a proper bandage by the attending physician. An opening had, however, remained, through which nearly constantly urine escaped. From his first to his seventh year the child was taken to an orthopædic institution of this city, where compresses were applied by means of adhesive strips, without obtaining any result. Considerable urine escaped through the navel, wetting the clothes and causing a terrible smell.

The boy presented a strong and healthy appearance. In the centre of the umbilicus an opening existed large enough to admit the passage of a uterine sound. The urine passed both through the urethra and the fistule. Dr. A. Jacobi, to whom I showed the child, introduced a catheter through the umbilical fistule into the bladder, through which he injected water into the bladder and again emptied it.

On June 3, 1876, I performed the operation, kindly assisted by Drs. F. H. Hamilton, A. Jacobi, and others, by making a raw surface above the fistule, detaching from below the fistule a flap corresponding in size to the freshened surface, and drawing it over the fistule and sewing it to the wound, which was then covered by compress of cotton wadding. But little suppuration occurred, which I controlled by the application of a solution of acetate of alum. At the end of the first week a very small quantity of urine escaped through a small opening, which, however, soon closed upon the application of nitrate of silver.

I saw the patient again several months after the operation, when I convinced myself that the fistule was entirely closed, and that the urine passed through the natural channel only.

On June 22, 1877, I showed the patient to Dr. Jacobi, who filled the bladder with water through an elastic catheter. He succeeded in injecting 12–13 ounces; the organ expanded evenly and in a normal pear-shaped manner.

Very complete and valuable reference to the literature of our subject is found in the above-quoted essay of Hoffmann, also in a thesis of Dr. Ernst Veiel, "Die Metamorphose des Urachus," Tübingen, 1862. H. Luschka has reported the results of his researches about the construction of the human urachus in the 23d volume of *Virchow's Archiv*. A drawing of vesico-umbilical fistule by Froriep is contained in W. Roser's *Handbuch der anatomischen Chirurgie*.

Since the publication of Hoffmann's paper, I. I. Charles has published an essay on the treatment of patent urachus (*British Medical Journal*, Oct. 16, 1875. Meeting of the British Medical Association). This case is of great practical importance; it concerned a boy, one year old, in whom the urachus had remained patent; nearly all the urine escaped through it, and but a few drops passed through the urethra.

Charles found the cause to be congenital phymosis. After performing circumcision the urachus closed spontaneously, and the urine passed through its normal outlet. He therefore recommends thorough examination of the urethra and penis before deciding upon a plastic operation for closing the patent urachus, since the removal of any existing anomaly of the former may be followed by the closing of the latter.

M. Jacoby has also reported a case of congenital vesico-umbilical fistule (*Berlin. klin. Wochenschrift*, 1877, No. 15, "Zur Casuistik der Nabelfisteln"), in addition to the case of acquired fistule mentioned above. In this case of congenital fistule at first compression was tried, but as this did not succeed, the red-hot iron was twice applied, and the fistule closed.

DISLOCATION OF THE STERNAL END OF THE CLAVICLE UPWARDS.

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This form of dislocation is very rare. Malgaigne has recorded four such cases, and Dr. Frank H. Hamilton two, in his fourth edition of his excellent work on Fractures and Dislocations. Mr. Bryant has seen a double dislocation of this variety in a sewing-girl æt. 20 years, produced by being violently crushed while in a crowd.

His second case was caused by a fall on the shoulder. The first case which Dr. Hamilton met, a patient of Dr. Rochester's, was caused by being caught under the bar of a gateway, while riding on a load of wood; the second by a fall upon the shoulder; in one of my own cases, by a drunken man falling down a flight of stairs, striking upon his shoulder; in the second, most likely, occasioned by a difficult labor, lasting the greater part of two days, according to the mother's story. This dislocation seems to have been produced in all the reported cases by a force exerted upon the end and top of the shoulder, in consequence of which the clavicle at the sternal end is lifted or pushed upwards from its bed, freeing it from its numerous ligamentous attachments to the sternum, and in some cases rupturing the costo-clavicular ligament. The symptoms are depression of the shoulder of corresponding side, and elevation of the sternal end of the clavicle.

There is increase of space, consequently, between the clavicle and the first rib.

There is shortening of the space between the acromion process of affected side and centre of sternum. There is an apparent tumor above the sterno-clavicular articulation.

The sterno cleido-mastoid muscle is relaxed on affected side; but this depends upon the position assumed by the patient, being more tense in upright position, especially the sternal fibres of the muscle. There is considerable pain at seat of injury, on motion of the arm. Reduction has been found easy; but retention has not been accomplished perfectly in any case reported, or under my observation. The dislocation has in no case seriously impaired the functions of the arm.

Case I.—Michael Mulay, 25; male; Ireland; laborer. Admitted to Bellevue Hospital April 24, 1874. Family and personal history good. Is an occasional drinker. Denies venereal. On week previous to admission, after taking a drop too much, he fell down a flight of stairs, striking upon the top of his shoulder and the side of his head.

Next morning, after recovering his senses, he felt the bone out of place on his chest, and found that it hurt him to move his arm.

On admission, was found to have a dislocation of the clavicle upwards, and slightly forwards.

Oct. 27th.—To-day his arm was put up in Dr. Sayre's apparatus for fractured clavicle, and, in addition, a strap of adhesive plaster was first fixed to his back, or, rather, to the band passing around the body, and then brought forwards across the clavicle. At the point of articulation of clavicle with the sternum, a tightly rolled bandage was placed over the free extremity of the clavicle, and the strap of plaster drawn tightly across this, and then carried downwards, and fixed to the chest in front. This addition to the apparatus brought the bone into position, and held it there.

May 1st.—Patient has been kept in bed upon his back. Deformity is scarcely perceptible.

The strap across the clavicle gets loosened frequently, and is adjusted by the orderly, and tightly pinned to the waist-strap below.

May 6th.—Since last note patient has remained constantly in bed, lying upon his back.

To-day the straps were removed, and it was found that the deformity had been removed to a great extent, there being merely a slight prominence over the upper margin of sternum, perceptible to the touch. Would not be noticed by the eye, except by careful inspection. His arm was carried across the chest, and confined by a roller of bandage, and patient was allowed to sit up.

May 7th.—Patient wishes very much to go home, and, as it is not deemed advisable to keep him constantly on his back in bed, a bandage was applied so as to confine his arm to his chest; and he is this day discharged.

Deformity has been to a considerable extent removed. Patient has free use of arm of that side.

Case II.—Charles L., 2½ months. The mother has always been healthy. Denies venereal. Her husband is a brakeman, and, although I have repeatedly left invitations for him to call at my office, have been unable to learn his history personally. His wife says that he is very delicate, is 28 years old, and partially paralyzed.

Fell on the street, with hemiplegia of left side, about one year ago. Is troubled with headache. This is their first child.

The mother says that she had a very difficult labor, and desired the application of the forceps; but the attending physician did not think it best to use them. The child was fine and large, having apparent health till it was about two months old, when it began to lose flesh, and seemed to suffer pain, especially on washing. A friend suggested that there must be something wrong with the child, and, after diligent search, noticed a "lump on its neck." Owing to sore breast on right side, this breast dried up, and, not having enough milk, she gave it cow's milk, with crackers broken into it. Baby not thriving well for two weeks, she sent for me, April 11, 1877.

Found it emaciated, of a peculiar hue of skin, uttering a moaning, husky cry, snuffling through the nose. Temperature normal; pulse 160. Abdomen was tense and tympanitic.

Presented a copper or light reddish, dusky eruption on all the extremities, neck, and back of head, and on the face, averaging in size that of a coffee grain. Some were larger, and others were smaller. It seemed to me a clear case of inherited syphilis, though the mother gave no such history. I prescribed a colic remedy at the time and a change of diet.

The mother then directed my attention to the "lump in its neck," which I recognized as a dislocation of the clavicle upwards, at the sternal end. It seemed to project forward some little as the child sat upon its mother's knee. As it would lie back, with its head extended over the mother's arm, the deformity would almost become reduced; but the end of the clavicle would project backwards somewhat while in this position.

The patient always rested better in this position, and the indication for successful treatment would seem to be to keep the patient as much in this position as possible, or, when up, to have such an apparatus applied which would as nearly answer the indications as possible. The child was too weak, and the skin too tender, to make use of any regular dressing.

April 13th.—Child is not suffering much pain when kept upon its back, with head extended over pillow; but the eruption was more marked. This does not appear in the least itchy. Seems to take its nourishment better.

April 16th.—Child breathes freer, but will not recover.

I placed a band of adhesive plaster obliquely across the chest, over scapula of affected side, and over point of injury, placing a pad of lint over the sternal end of the bone, beneath the plaster. Ordered anti-syphilitic treatment, but with little hope of recovery.

April 17th.—Patient was evidently dying when I saw it this morning. Died soon afterward.

From the history of the delayed and difficult labor, and the positive assurance given that the child has met with no accident since birth, I am inclined to think that the dislocation took place at birth. The violent contraction of the uterus, forcing the shoulder upon the floor of the pelvis, would fulfil the conditions as cause of such an accident.

The syphilitic taint may have formed an element as to causation.

However, I will leave this for my professional brethren to solve.

The plumpness and apparent good health of the child prevented the discovery of the accident until it became emaciated from the fatal malady, which also was congenital.

I present, therefore, this case as the second disloca-

tion of clavicle at birth. The first case was that of Mr. Fergusson.*

This is the only one of this variety, the rarest of the three forms of dislocation, which has yet been reported, to my knowledge, as occurring at birth.

As to treatment in dislocations of the clavicle, referring only to those at the sternal end as being dislocations of this bone, there is not very much encouragement to be hoped for in the treatment, at least as derived from those on record.

In order to reduce any of the three dislocations, the shoulder must be carried upwards, outwards, and backwards, precisely as we would reduce a fracture of the bone. There are innumerable modes of applying as many kinds of apparatus. Should I meet another case, I would use the same dressing as employed in Case 1, or try that employed by Tyrrell in his case of dislocation backwards of the clavicle, as related by South in his note to Chillus's Surgery.

He placed a splint across the shoulders, with a pad between it and the spine, and bandaged the shoulder back to this.

The splint was kept on a fortnight, and the bone being then quite steady in its place, she was then allowed to remain in bed without a bandage.

The articulation became in four weeks quite as firm as that of the other side.

I should feel disposed to use some such mode in all the varieties, with oblique strap and pad in addition in cases of dislocation upwards or forwards.

Very fortunately, the usefulness of the arm in all cases is very little diminished, except to raise weights above the head, and there is comparatively little pain or disturbance to the person afflicted, except in some cases of dislocation backwards.

In the December number, 1875, of the *Monthly Abstract of the Medical Sciences*, is a note of a case taken from the *Archiv der Heilkunde*, vol. xvi., where a girl, æt. 16, had on one side only a rudiment of a clavicle, an inch and a half long, loosely connected with the sternum, and on the other side, where also the sterno-cleido-mastoid was also absent, one clavicle only ⅔ inch in length. Both humeri could be easily brought in front of the chest until they touched; yet there was no functional disturbance, the absence of the clavicles being compensated by muscular action, especially in regard to fixations of the scapulæ.

Progress of Medical Science.

A Case of Pernicious Anæmia Terminating in Medullary Leukæmia.—The history of this case was given in a paper recently read before the *Gesellschaft der Charité Aerzte*, in Berlin, by Dr. Litten. The patient, a previously healthy young woman, was confined in November, 1875. She nursed her own child for five months, and then another child for nine months, her milk being always abundant, although her food was poor and insufficient. In the latter part of January, 1877, she began to feel badly, and became weak and pale. Vomiting soon set in, and was repeated several times daily. On February 11th, when she was admitted into the Charité, she presented the signs of the most extreme anæmia; the skin and membranes were of a waxy paleness, but at the same time she was quite corpulent. She had no appetite, and vomited what she did eat. The pulse was 112, and moderately full; a loud and sharp systolic murmur was heard all over the precordial region; there were numerous small retinal hemorrhages, some with whitish centres; the retinal arteries had a strikingly pale-red color, and the optic nerves were exceedingly pale. Microscopical examination of the blood showed the red corpuscles to be greatly diminished in number, but unchanged in form. Microcytes were almost absolutely wanting; the white corpuscles were slightly increased in number, most of them belonging to the larger variety. There was no enlargement of the spleen or liver. For three days the condition of the patient remained unchanged, but on the fourth day a marked increase in the white blood-corpuscles was discovered: on that day the proportion was fifteen red corpuscles to one white; on the next day it was nine to one; on the third day four to one, and on the fourth day, on which death took place, the ratio was still smaller. About half of the white corpuscles were of the large variety, with distinct, vesicular nuclei, and sometimes nucleoli. The nucleus was generally large, and in many took up most of the cell. Some cells had two nuclei. Meanwhile no enlargement of the spleen or glands, and no tenderness over the bones could be discovered. During these four days the patient suffered from frequent, severe attacks of dyspnœa. During the entire course of the disease fever, œdema, and albuminuria were entirely absent.

Autopsy.—Heart, marked fatty degeneration; valves normal; cavities slightly dilated. General muscular system of body, in contrast to the heart, exceedingly dark-red in color. All the internal organs excessively anæmic. Spleen, Malpighian follicles slightly enlarged. Kidneys presented a number of whitish-gray, miliary nodules, which projected slightly above the surface. The medulla of the long bones was of a dirty gray color, and contained circumscribed spots, which were greenish-yellow in color, and almost fluid in consistence, and also smaller spots which were more gelatinous, and were surrounded by red zones. Microscopical examination showed the puriform and gelatinous masses to consist principally of the same large, round, granular cells, with distinct vesicular nuclei (medullary cells), which were found in the blood, along with a few lymph-corpuscles of ordinary size, some red blood-corpuscles and cells containing blood-corpuscles. Fat-cells were almost entirely wanting, as were also nucleated red blood-corpuscles. In the Malpighian corpuscles of the spleen the lymph-corpuscles were more closely packed than normally; the nodules in the kidneys consisted of masses of lymph-cells, which extended a short distance into the cortex. The muscular fibres of the heart were fatty.

In his remarks on this case, Dr. Litten asserted that from the history it was evident that it was, in the beginning, one of simple pernicious anæmia. The leukæmia set in only four or five days before death, although it was not impossible that a disease of the medulla of the bones existed before the blood gave evidence of its existence. He ascribed the fatty degeneration of the heart to the pernicious anæmia, and stated that leukæmia never gave rise to such general and intense fatty degeneration of that organ. In four fatal cases of pernicious anæmia that had come under his observation, the fatty degeneration of the heart was very marked, while, in sharp contrast to it, the general muscular system was well developed, and of a deep-red color. The adipose tissue in these cases was well developed, and in some of them abundant. The abdominal organs were exceedingly anæmic; in two of the cases the spleen was slightly enlarged and hard, and contained large numbers of cells that enclosed blood-

* Fergusson, System of Practical Surgery, Amer. Ed., 1853, p. 203.

corpuscles. Fatty degeneration of the liver, kidneys, and pancreas was present in some, but not in all of the cases. The medulla of the bones was examined in only two of them. In one it was macroscopically unchanged; when examined with the microscope it was found to contain nucleated red blood-corpuscles and large numbers of microcytes, but very little fat. In the second case it looked like raspberry jelly, was very poor in fat, and contained a few microcytes and a considerable number of nucleated red blood-corpuscles. The latter were rather large and round, and contained a vesicular, usually eccentrically located nucleus, which was generally colorless, but sometimes colored. Some cells had two or three nuclei. The medulla cells were increased both in number and size. During life microcytes had not been constantly found in the blood in these four cases. The white corpuscles seemed sometimes slightly increased in proportion to the red, but the increase never reached such a degree as to raise the suspicion of a leukæmic disease of the blood.—*Berliner klinische Wochenschrift*, November 19 and 20, 1877.

Resection of the Infra-orbital Nerve.—At the meeting of the *Société de Chirurgie* in Paris, on June 13th, M. Tillaux reported a case of resection of the infra-orbital nerve in the canal of the same name. The patient, a servant, thirty-one years of age, had suffered for eleven years from facial neuralgia, and from purulent discharge from the antrum. A free opening had been made into the antrum and drainage secured; injections of iodine, and cauterization of the interior of the antrum with nitrate of silver, chromic acid, and the hot iron, had been tried in turn, but these and all other methods of treatment had secured only temporary improvement. The pains were exceedingly severe, and started from the infra-orbital foramen, extending into the globe of the eye. The side of the face was excessively tender. Resection of the nerve having been decided on as a last resort, M. Tillaux made a horizontal incision analogous to that recommended by Nélaton for disarticulation of the upper jaw, and then a vertical incision terminating at the ala of the nose. The nerve was exposed at its exit from the canal, and was surrounded by a ligature, and the branches given off from it were dissected out for some distance. The periosteum of the floor of the orbit was then stripped from the bone and the globe of the eye raised up in a coffee-spoon. The nerve could now be seen in its canal through the transparent bone; it was laid bare by the aid of a chisel, and was divided deep in the orbit by a pair of curved scissors. By drawing on the thread previously applied, the entire nerve was removed. It appeared a little large, but microscopical examination showed it to be normal in structure. After removing the nerve, an opening was made into the anterior wall of the antrum Highmori, and on introducing his finger M. Tillaux found osteophytes on the superior wall. The floor of the orbit presented no lesion. The operation was performed on May 1st, and eleven days later the patient was able to return to her home completely cured. Since then she had not complained of any pain at all.—*La France Médicale*, June 16th.

Arsenic in Albuminuria.—Dr. T. Lauder Brunton reports the case of a man, who for nine years suffered from intermittent albuminuria, with debility, and at times loss of flesh. The albuminuria was worse in summer, was brought on by exertion in the morning and by the use of meats and fats, and completely disappeared when a farinaceous diet was rigidly adhered to. The patient suffered much from acidity, especially in the morning. There was no œdema. The heart and lungs were healthy. No casts were found in the urine, but it was not very frequently examined for them. Quinine increased the albuminuria, and so did phosphorus. Digitalis caused it to diminish slightly, but the drug disagreed with the stomach, and had to be stopped. On account of its supposed action on the secreting structures of the kidney, Fowler's solution was finally ordered at meal times in three-minim doses. The albumen disappeared from the urine almost at once, and the patient was able to do much more work than before, without bringing it back. Dr. Brunton thinks that the albumen in this case was derived in great measure from the intestinal canal—that, in consequence of the imperfect digestion of albuminous substances, albumen was absorbed from the intestines, and excreted by the kidneys, much in the same way that white of egg would have been, if the patient had swallowed several raw eggs at once. As the pancreatic juice first converts coagulated albumen into a soluble form, before finally digesting it, it seemed probable that imperfect pancreatic digestion was the cause of the albuminuria. Pancreatic emulsion was administered on two occasions, but it did harm rather than good. This was probably because the fat caused acidity of stomach, for, when pancreatine alone was given, without the fat, the albuminuria disappeared.—*The Practitioner*, June, 1877.

Drainage of the Eye by Catgut.—M. de Wecker, who introduced the use of drainage in ocular therapeutics, has of late successfully employed catgut for this purpose. He has used it in cases of glaucoma, detachment of the retina, and corneal and sclerotic staphylomas. The catgut he uses is preserved in carbolated oil, and after the fat has been dissolved out with ether, it is carefully dried. A single or double thread of it is then passed through the eye, and lightly knotted in front. It falls off, in children at the end of three or four days, and in adults after six or seven days. An active filtration without symptoms of irritation takes place at the points of entry and exit of the thread. M. de Wecker claims that by this treatment the intra-ocular tension can be reduced much more efficaciously than by iridectomy.

Dr. Nicati has studied experimentally the influence of drainage by catgut on the eyes of animals, and draws the following conclusions from his observations:

1. Drainage by catgut introduced across the equatorial region of a healthy eye, diminishes its tension to a considerable extent, and for a period as yet undetermined. Drainage of the anterior chamber has a much less pronounced durable influence on the intra-ocular tension.

2. The catgut is dissolved in a few days in the fluid of the conjunctival sac, but in the vitreous humor, the aqueous humor, and the cornea, it takes a long time to disappear.

3. The absorption of the catgut is preceded by a vascular new formation in the vitreous humor and the cornea.

Dr. Nicati believes that the happy results obtained by M. de Wecker in the treatment of anterior staphyloma by drainage are due to the development of a sclerosis consecutive to the marked vascularization of the cornea, the sclerosis being developed while the tension of the eye was diminished.—*Gazette des Hôpitaux*, June 28th.

Prescribing Druggists.—The *Med. Press and Cir.* quotes the portion of our report of the Connecticut State Medical Society bearing upon the above subject.

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MEDICAL CLIQUISM.

THE filling of several hospital vacancies during the past few months calls to mind the means which are usually adopted to secure the end. The desirability of these appointments always fills the lists with eager applicants, and compels a competition of interests which is widespread and various. In fact, no professional man knows how strong or how weak he is until he becomes a candidate for a hospital position. Every part of his character is thoroughly canvassed before the board of managers, and if they do not know everything concerning his social antecedents, his professional standing, individual merit, and all other details concerning him, it is no fault of his friends or of his enemies. So evenly matched are the two parties that when one blows hot the other blows cold, so that by the time the managers get ready to vote they always have a very exalted opinion of physicians in general and the candidates in particular, and yet we are invariably told that the contests are always honorable, and the parties behind the curtain smile accordingly.

It is always interesting, on all such occasions, to note the particular influences which are generally at work. But above all, those of the different cliques are brought out perhaps with a distinctness which, if not glaring, is at least sufficiently defined to be unmistakable to the initiated. We make these remarks in no disparagement of the candidates who have been successful, but merely for the purpose of illustrating some general facts connected with professional cliquism as it exists in this and other large cities.

We are often informed, with the seeming positiveness of authority, that there is no such influence in existence; that true merit is always the recognized basis of preferment, and that he who works will surely win. Contrary to our wish, we are beginning to think that this is oftener the exception than the rule.

There are always several so called professional rings which exist in large towns and cities. The principal ones are those which revolve around a particular college, and are almost absolute in their exclusiveness. The members of the faculties and the lesser lights are bound by an honorable understanding to look after each other on any and every occasion.

And no one can conscientiously say that they do not do so. In fact, such action to each other shows cliquism to perfection.

It would be amusing, if it were not somewhat serious, to witness the anxiety of the college men concerning the proper filling of these places, for there has never been a vacancy in any of these institutions in which the colleges have not in some way meddled. These schools seem to own the majority of the hospital appointments. The faculties vote themselves in as teachers, and then claim, on that account, the usual facilities for clinical instruction. Of course every reasonable person acknowledges the force of this argument, and it is only occasionally that any one dare to defy those who claim the right to farm out clinical material. They often come to grief, as in one of the later struggles; but the principle upon which the fight is fought is always good, and never can lose in strength by defeat. On the contrary, we think that there is a growing disposition on the part of competent men—if the existence of such can be allowed outside of a faculty—to ignore college influences, and boldly assert their rights.

The college ring is usually a perfect one, and contains all those elements of self-interest which give it its greatest strength. It is well understood that no case for consultation goes begging outside the circle. The professor of medicine always sends his surgical cases for opinion to the professor of surgery, and so on to the end of the chapter. Unless we can conclude that a given college contains all the talent, we may sometimes doubt if the dealing with the patient is just. But this is an affair of conscience, upon which we do not care to dwell. What is true of colleges is also true of smaller associations, and even of individuals. It is hardly possible to estimate the number of smaller influences and interests which make up the complete history of medical cliquism.

No one would object to the extent of the latter if it were governed by those principles which stimulate honorable motives and sanctify ordinary friendship.

Generally speaking, the moving power rests in a few individuals who have merit and management combined. They are kings for themselves and Warwicks for others. Naturally they gather around them numerous hangers-on, who rejoice in the privilege of doing the bidding of their chief. To be outside of such influences is to have few, if any, chances of success; to be in the ring is often the making of professional fortune. The youngster who strikes the fancy of a great man has the world, in a professional sense,

at his feet. As assistant, partner, or special consultant, patients are crowded upon him, and he becomes a success from the start. Hospital positions are found him; college lectureships and the like come from the mere asking. He is not allowed to fail if he would. Such men are always formidable antagonists in the college or hospital lists; in fact, we have known of some timid aspirants who have given up against such odds from the very start. But it is necessary that these things should be, that each little circle should take care of itself, and feudalize its interests so that the great political machinery of medicine should harmonize with what may be called honorable struggles for preferment and place.

Reviews and Notices of Books.

Book of Medical Information and Advice. By J. Warburton Begbie, M.D., F.R.S.E., etc. London: T. Nelson & Sons, Paternoster Row. Edinburgh and New York. 12mo, 259.

This is a very useful manual, prepared by the late Dr. Warburton Begbie, of Edinburgh, and now for the first time, after having passed through several editions anonymously, appears with his name upon the title-page. Although the work is of small size, it contains an immense amount of valuable information for laymen who by necessity or other circumstances are placed beyond the reach of physician or surgeon. It is thoroughly practical, and deserves the endorsement of the profession.

Kings County Medical Society.

The proceedings of the Kings County Medical Society contain many papers of general interest.

Dr. Mattison gives an exhaustive review of the subject of opium inebriety; the chief points being that the habit is a disease which claims two classes for its victims: first, those who employ the drug, per physicians' prescriptions, without a thought of the danger supervening; and second, those who, with an inordinate desire for stimulants, have recourse to it as one demand or another for its use may be uppermost.

The treatment advocated is principally tonic. The value of alcoholic stimulants is doubtful; by some it is esteemed, by others condemned as worse than useless. Physical restraint is counselled, in so far as to place the patient in an asylum, where he can be controlled, and the drug administered only as necessity requires.

Another paper by Dr. Alexander Hutchings, on the Nitrite of Amyl, is full of practical suggestions. The *modus operandi* appears to be by arresting the process of oxidation in the tissues.

Dr. Geo. M. Beard contributes a practical essay on the electrolytic treatment of nævi, which are divided into three classes: first, those which are beneath the skin and do not affect the surface, except through pressure; second, those which are in the skin—the so-called port-wine stains; third, those which are raised more or less above the surface of the skin. Subcutaneous nævi are to be treated like aneurisms. Insulated needles are inserted, and one pole—by preference the positive—may be used, the other being applied on some indifferent point. There is danger in case a too strong current is used, or continued for too long a time. Nævi situated above the surface of the skin may be treated by uninsulated needles and strong or mild currents, according to size. The most difficult forms of nævi to treat are the so-called port wine stains. Both mild and strong currents are used, with varying success, the difficulty in these cases being to know just when to leave off.

Dr. C. H. Giberson gives a description of a new urethrotome designed especially for the treatment of strictures of large calibre. Several cases are cited, and, judging from the success following their treatment, the new instrument will doubtless prove a valuable adjunct to the armamentarium of the urologist.

We have not the space to notice the other papers, but we hope that the Kings County Society will continue to publish their transactions yearly, as we have seldom met with more interesting records of medical and surgical practice.

How to Use the Ophthalmoscope: Being Elementary Instructions in Ophthalmoscopy, Arranged for the Use of Students, with thirty-five illustrations. By Edgar A. Browne, Surgeon to the Liverpool Eye and Ear Infirmary, and to the Dispensary for Skin Diseases. Formerly Demonstrator of Anatomy in the Liverpool Royal Infirmary School of Medicine. Philadelphia: Henry C. Lea. 1877.

The method of using the ophthalmoscope is clearly depicted in this little volume; not only for the advanced student, but for the beginner, who is so often discouraged by lengthy descriptions, and almost incomprehensible technicalities. Indeed, the plan of the book is so simple that any student, with the slightest imaginable amount of ophthalmological knowledge, may follow its pages intelligently and with profit.

As the author says: "The arrangement has been dictated by what appear from personal experience to be the wants of the average student who is anxious to learn, but distracted by a multitude of facts and theories, for the most part dimly and phantasmagorically seen, cannot acquire the full complement of practical knowledge in the brief periods between the dreaded crisis of his examinations." The writer also says that he may appear to have treated the subject in too elementary a manner, and that the illustrations may be too rough. As to the first: the book is intended for beginners, but will convey much valuable information, in a concise form, to the more experienced. The illustrations, thirty-five in number, are all that could be desired, their very simplicity emphasizing the one dominant fact and suppressing the less material." The work is divided into four sections, of which the first treats of optical principles—light, reflection, refraction, focus; the second, of the ophthalmoscope, the mode of using it, and oblique illumination; the third, of appearances of healthy structures; the fourth, of appearances of disease, opacities in cornea and lens, to ascertain the refraction of the eye, conical cornea, astigmatism, changes in the optic disc, retina, choroid, etc.

The Report of the Resident Physician of Bingham Hall for 1876 chronicles the death of the late resident physician, Dr. George Cook, who conceived the project of establishing this institution in 1855. Dr. D. R. Burrell, the present superintendent, has endeavored to follow Dr. Cook's plan of having no fixed rules for the guidance or movements of patients, individualizing each case, and dispensing, as far as possible, with hospital routine or system. One hundred and twenty-two persons were treated during 1876, seven of whom died.

General Index of N. Y. Medical Journal. By Jas. B. Hunter, M.D., Editor. D. Appleton & Co. 1877.

The General Index to the New York Medical Journal, from April, 1865, to June, 1876 (twenty-three volumes), by James B. Hunter, M.D.; New York: D. Appleton & Company, 549 and 551 Broadway, is very thorough and complete in many respects. It is a neat volume of 144 pages, and shows considerable care and labor on the part of its author.

Report of the United States Marine Hospital Service. 1875.

We learn that with the 30th of June, 1875, the seventy-seventh year of the operations of the Marine Hospital Service was closed, and the fourth year of its organization on the present basis. To estimate the amount of work done in this department, it is stated that relief extended to ninety-four sea and inland ports of the United States, and 12,509 seamen were treated in hospital, while 2,070 others were relieved at the offices of the surgeons. The number that have thus been cared for was larger than ever before. We are surprised to see that previous to 1873, medical officers were appointed without any preliminary examination, though since that time the requisite qualifications have been tested by a suitable examination, and yet as the new order of things depends upon a *regulation*, and not upon a *statutory provision*, "there are not wanting those who persistently endeavor to break down this barrier against mediocrity and ignorance." It seems to be with the Marine Hospital Service as with the other departments of government: political influence is constantly being brought to bear to secure appointments, while special fitness for the place is thought of minor consequence. The Supervising Surgeon-General very properly urges that some legislative provision be made for the preliminary examinations of surgeons, since the government holds the hospital fund in trust for the seamen, and the sacred duty of trusteeship implies that it should exercise as much care in determining the qualifications of its officers as in selecting officers for the army and medical corps.

Some papers of interest on special diseases, such as yellow fever at the ports, are valuable and interesting. We should be pleased to see more of them, as the officers of the government often have unusually favorable opportunities for studying certain classes of disease, of which our practitioners can know little, because they see them so seldom. This is true *par excellence* of yellow fever and cholera.

Prize Essay—American Medical Association. Excision of Larger Joints of the Extremities. By H. Culbertson, M.D., Professor of Ophthalmology in Columbus Medical College, Assistant Surgeon U. S. A., retired, etc. Philadelphia, 1876.

The work before us, as its title indicates, received the prize at the American Medical Association, and was published by that body. It now equals in size the volume of the Transactions, and altogether has been rather an expensive venture for the Association. Although the work as it stands is one of th most valuable contributions to surgery which has been read for many years—in fact, in the special branch of which it treats, is exhaustive—why it should have received the prize in question does not appear. But the mistake on the part of the Prize Committee will not detract from the work as a standard one for reference for many a year to come. To give some idea of its scope, we may mention that nearly four thousand cases of excision of the different joints have been collected, tabulated, analyzed, and made the basis of practical deduction of the greatest value regarding the different methods of operation, after-treatment, etc. The great care and exhaustive labor which the author has expended upon the work makes it an indispensable addition to the surgeon's library; in fact, the volume contains everything necessary to be known in connection with the history and treatment of the affections of all the larger joints requiring excision. It is suitably illustrated with woodcuts showing the surgical anatomy of the joints in different aspects, and altogether is a complete guide for every species of operative procedure upon these parts. We are glad to see that work published, and believe it to be an invaluable contribution to the subject, but nevertheless, in our opinion, it does not represent that character of work which entitles it to the special distinction of an Association prize.

An Elementary Treatise on Practical Chemistry and Qualitative Inorganic Analysis, Specially Adapted for the Use of Laboratories, etc. By Frank Clowes, D.Sc., London. From 2d London edition. Philadelphia: H. C. Lea, 1877. 12mo, pp. 372.

This little treatise is intended to supply the student in the chemical laboratory with all the practical directions which are necessary for the prosecution of his work. The arrangement of the subjects in the volume is a natural one, and is calculated to lead the learner step by step to the intelligent appreciation of the more difficult problems. We have no doubt that the work will meet with favor in this country, and, as in England, become one of the standard authorities of its class.

Transactions of the Pathological Society of Philadelphia. Vol. VI. Edited by James Tyson, M.D., Prof. Gen. Pathology and Morbid Anatomy, Univ. Penn. Philadelphia: J. B. Lippincott & Co., 1877. 8vo, pp. 153.

Volume six of this series contains the report of the proceedings for the sessions of the Society from September, 1875, to July, 1876. The subjects are arranged as usual under the anatomical division which is at once the most simple as well as natural. They comprise specimens illustrating diseases of the osseous, digestive, circulatory, respiratory, and nervous apparatus, besides numerous miscellaneous specimens, some of which are from the lower animals. The material is well worked up, and causes the present volume to rank in value and interest with any of its predecessors.

Fruit and Bread, a Scientific Diet. By Gustav Schelkeysen. Translated from the German by M. L. Holbrook, M.D., etc. New York: M. L. Holbrook & Co.

This is a labored attempt to prove the utility of fruit and bread as an exclusive article of diet. It is filled with extravagant statements, absurd propositions, and ludicrous deductions. With a certain class we have no doubt it will be enthusiastically received.

Diabetes Mellitus.—Dr. D. Ray, of Pottersville, Cal., writes: "For more than ten years I have been treating diabetes with perfect success with the fluid extract of bugleweed (sycopus virginicus), simply observing the lessons taught by chemistry in regard to diet. The dose is a teaspoonful five times a day."

The New Discoverer of Anæsthesia does not seem to be very well received by the medical press in spite of his distinguished advocate. No journal as yet has given an unqualified opinion in favor of the new candidate for fame.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 13, 1877.

DR. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

OSTEO-SARCOMA OF FEMUR, SKULL, LUNG, ETC.

DR L. A. STIMSON presented portions of the lungs, skull, dura mater, and femur of a patient from whom he had removed a central osteo-sarcoma of the lower end of the femur by amputation November 21, 1876. The history of the case and description of the tumor appear in the Transactions of the Society for the meeting of November 2, 1876 (MEDICAL RECORD, January 6, 1877).

The patient recovered speedily from the operation, and the wound healed entirely within the first fortnight. Two months later, after having been at work some time at his trade of carpentry, the patient began to cough and had a slight hemorrhage from the lungs. The cough continued with occasional hæmoptysis until the 7th of April, when he was admitted to the Presbyterian Hospital. In the meantime a hard, flat, circular tumor, half an inch in diameter, had appeared on the left frontal bone near the bregma.

On examination slight dulness was found over the upper portion of the right lung, with increased vocal resonance, sibilant and sonorous râles. The dulness increased for a week and then grew less, but the signs of bronchitis grew more marked on the right side, and toward the end of April the paroxysms of cough became very frequent and prolonged. The cough was harsh, the expectoration scanty. The dyspnœa following any exertion was very distressing. The paroxysms were asthmatic in form, and were not accompanied by any cyanosis until two days before his death, which took place May 4th. The patient rose in bed, drank a glass of milk, and fell back dead.

At the autopsy the lungs were found to weigh seven pounds one ounce, and to be filled with nodules varying in size from a cherry to a child's fist. The largest of these nodules occupied the left side of the pericardium, and extended into the left lung. Some of the nodules were entirely within the lung; others projected upon its surface, and were covered only by the visceral pleura. On section all present the same appearance, with slight modifications due apparently to their relative age. A peripheral zone, equal in width to one-third or one-half of the radius of the nodule, pinkish-gray in color, and of tolerably firm consistency, enclosing a soft, friable, yellow centre. In almost every nodule is found a highly vascular or hemorrhagic segment; in a few are gritty, calcareous points, the scrapings from which present under the microscope the appearances of commencing ossification: but well-defined osteoplasts, concerning the nature of which there could be no doubt, were not found, although there was no lack of elements resembling them more or less closely. In the large nodule, however, bordering on the pericardium, there is a piece of fully formed bone an inch in diameter and one-third of an inch thick, in which osteoplasts, normal in size, shape, and appearance, abound.

On microscopical examination, the nodules are found to be composed of crowded masses of round and fusiform elements containing oval nuclei, some of which are multiplying by scission. No alveolar structure.

Two of the bronchial glands had undergone entire cheesy transformation; the others were slightly enlarged, especially a bunch lying against the posterior wall of the trachea and primary bronchi at the bifurcation, but showed no signs of sarcomatous change. Some of the smaller bronchi were filled with dark-colored, juicy clots; in all, the usual signs of bronchitis, injection of the mucosa, frothy serum, were present. There was no enlargement of the femoral, inguinal, or retroperitoneal glands; no deposits in any of the abdominal viscera, all of which were apparently healthy.

The tumor of the frontal bone was an osteo-sarcoma, occupying the entire thickness of the bone, which was firmly adherent to the dura mater over a space one and a half inches in diameter. That portion of the tumor which rose above the level of the outer surface of the skull was separated from the rest by a diaphragm of dense bone, which was complete except over a small space in the centre, and was formed by the outer table of the skull, thinned by erosion on its under surface. This part of the tumor, therefore, bore a certain resemblance to an exostosis following periostitis, although composed of sarcomatous elements. It contained numerous spiculæ of bone, which were, of course, of new formation, and not due to rarefaction and expansion of the outer table. The inner table, as such, was entirely destroyed, and replaced by an irregular porous shell with a thickened rim, firmly adherent to the dura mater, and continuous with the central spiculæ of the tumor.

Layers of osteoblasts, with occasional individuals undergoing transformation into osteoplasts, were demonstrated several times in preparations made from different parts of the tumor, and the process thus shown to resemble that form of embryonal ossification in which the bone is not preceded by a cartilage of the same form and size.

On the under surface of the dura mater, at points within the area of adhesion, were three small red growths, the largest only the size of a large pea, projecting so far beyond the surface as to be almost pedunculated, and also composed of round and fusiform elements, with one or two points of commencing ossification (well-defined osteoplasts not found), not continuous, however, with the bone of the skull,

There is no sign of local return of the disease in the femur. The muscular and fascial attachments, especially on the inner side, have ossified, so that when examined before death the bone appeared to be enlarged. The wall of the bone has thickened for about half an inch, reducing the calibre of the medullary canal somewhat, and the latter is occupied for the same distance by spiculæ of bone adherent to the wall and to a thick fibrous diaphragm, continuous with the periosteum, which closes its cut end entirely. The canaliculi of this portion are enlarged. The interesting point is, that the medullary canal is not yet entirely obliterated, although nearly six months have elapsed since the amputation.

BADLY UNITED FRACTURE OF LEG.

DR. SANDS exhibited the skeleton of an amputated foot and leg, which he had removed from a lad aged twelve years, in consequence of a fracture which was badly united and which had occurred ten years ago. The fracture was occasioned by a fall, and involved both bones of the left leg a short distance above the ankle. The treatment was by pasteboard splints, and great deformity ensued, there being a sharp angular projection forwards at the point of fracture. The patient was then placed under the care of a natural bone-setter, who follows the usual practice of that class

men, by steaming, rubbing, etc. Then he was ken by his parents to an orthopædic dispensary in iladelphia, where the ends of the bones were illed and where he was so much benefited by treatent as to be discharged cured. Subsequently, hower, the deformity returned and he was obliged to ear an apparatus to compensate for the shortening the limb. The only remedy appeared to be amputtion, which was accordingly performed with a good sult. Dr. Abbe made an excellent preparation of e specimen, which showed that the union was ligaentous in character, and that the hard and soft ssues involved in the lesion were more or less conacted and atrophied.

EXTENSIVE CRANIAL SARCOMA.

Dr. Sands presented a specimen of intracranial sarma which illustrated the sequel of a case presented the Society five years ago. In November, 1872, with e assistance of Dr. Knapp, at the Ophthalmic and ural Institute, Dr. S. operated upon a German, aged venty-six years, for the removal of a soft sarcomaus tumor, which proved to be a chondrosarcoma, hich originated in the left antrum. The operation nsisted in throwing up a flap of the cheek, perforatg the antrum, and spooning out the growth. The tter could not be removed entirely, inasmuch as it as found to extend into the bones of the face, and to m a considerable distance into the frontal sinus. he operation, however, relieved the patient for a nsiderable length of time, and he was able to work his occupation, that of a driver of an ice-cart, for vo years.

In June of 1874 he presented himself, complaining f headache. Shortly after this he had an epileptic nvulsion and entered Roosevelt Hospital, where he mained for some months. He suffered from time to me with epileptic seizures, and it was supposed that ie growth of the tumor was extending into the brain. ecovering somewhat from these nervous symptoms ad receiving no encouragement from his physicians, e resolved to return home and die among his friends. the fall of 1874 he accordingly went to Europe id remained there until the close of 1875, when he sited Dr. Sands and reported himself cured. In 876, however, his old symptoms returned. Protrusion the left eye then showed itself, and was accomnied with complete atrophy of the left optic nerve. second operation was performed in June, 1876, at e same institution and with the assistance of Dr. napp. This time the operation was conducted in a tle different way. The tumor showed itself at the ner angle of the left eye and occupied the orbit as r as the finger could reach. The periosteum was exsed by making a flap of the eyelid and a portion of e integument of the forehead. On cutting through e periosteum the bony tissue was absorbed, and its ace was found occupied by the tumor, which penetted the bony cavities of the face, absorbing the briform plate of the ethmoid bone and the roof of e orbit. The scoop could be passed to the right of e median line. A sufficient quantity of the tumor s removed to permit the eye to resume its proper sition. The relief was, however, only temporary. on head symptoms developed, and he was readmitted o Roosevelt. He then suffered from paroxysmal adaches, became blind, deaf, and lost his smell, and s during the latter part of his life in a sort of por. The tumor grew externally so as to produce eous deformity. The face was frightfully swollen d a sanious discharge exuded from the nostrils.

Drs. Delafield and Abbe made a preparation of the skull. The specimen showed a very extensive invasion of the cranial cavity, the mass being the size of a large orange. It involved in absorption a portion of the bones at the base of the skull and the roof of the mouth, and in a vertical direction extended from that point to the top of the cranium. In quite a number of vertical planes there was no bony tissue whatsoever. A very thin layer of brain tissue was found covering the summit of the tumor. In some places this layer was not more than a quarter of an inch in thickness. In an antero-posterior direction the tumor extends from the front of the cranial cavity, a distance of four inches. In conclusion, Dr. Sands expressed his surprise that a patient with such an amount of disease, in such a locality, could have lived so long.

Dr. Delafield stated that the tumor was composed of cartilage and mucous tissue, and at the time of the removal of the specimen was almost in a diffluent condition.

Dr. Heitzmann exhibited a specimen of cystic carcinoma of the liver.

Dr. Beverley Robinson exhibited some phosphatic urinary concretions that had been voided in the urine of a man suffering from catarrhal phthisis and chronic nephritis. He believed that the coincidence of these two conditions was very rare. In support of this, he mentioned that Professor Flint found only eleven cases of this sort in six hundred cases of phthisis, and of the latter number but three or four had albumen in the urine.

Dr. Janeway had met with phosphatic calculi associated with tuberculous nephritis, but he did not recall such a condition accompanying phthisis.

Dr. Delafield said that chronic Bright's disease was associated quite frequently with phthisis, but the occurrence of calculi was more commonly noticed as a clinical fact than as an autopsical revelation.

Dr. Heitzmann stated that he had examined three hundred persons who had died of tuberculosis of different organs, and in not one did he find a healthy kidney. Interstitial nephritis was a very common, almost normal occurrence in such cases, and was entirely independent of tuberculosis of the kidney.

Dr. Janeway suggested that the reason why clinical cases showed such a remarkable absence of renal complications was due perhaps to the fact that such complications did not show themselves until the latter part of the lives of the patients.

EPITHELIOMA OF LEG—AMPUTATION BY GRITTI'S METHOD.

Dr. Weir exhibited the right leg, removed by amputation from a male patient of the Roosevelt Hospital, aged thirty-two years, who had suffered from an ulceration of that extremity for a number of years, gradually involving the bone, and eventually terminating in epitheliomatous degeneration. The operation, which was performed under the antiseptic spray, was by Gritti's method, through the condyloid expansion of the femur applying against the section the under surface of the patella, previously deprived of its cartilage. The patient had done astonishingly well, and presented to the members a firm and shapely stump.

VESICO-RECTAL FISTULA.

Dr. Weir exhibited specimens of the genito-urinary apparatus, showing a communication between the rectum and bladder, in the region of the prostate. The patient was a Frenchman, aged forty-three years, who first experienced difficulty in urination ten months ago. There did not appear, from his history,

that there was any special cause for this. However, from that time he commenced to suffer from frequent and painful micturition, and occasionally his urine would be tinged with blood. He entered Roosevelt Hospital some three months ago with symptoms of stone, but none were found on exploration, although considerable cystitis existed. On examination per rectum a dimpling was noticed in the region of the prostate, and the cause of a diarrhœa which existed was found to be the escape of urine through an opening into the bladder at this point. Milk injected into the bladder flowed into the rectum, and a bent probe was eventually passed so as to touch a sound in the bladder. The fistula was cauterized by the galvano-caustic, and the sphincter ani stretched, to prevent escape of flatus into bladder. The effect of the heated wire was, at first, to enlarge the opening, which, however, acted beneficially on the bladder by putting at complete rest, and allayed thus the severe pain that was complained of. The patient, a few weeks after this application, became listless, apathetic, and finally comatose, with the appearance of a tumor in right hypochondrium, but without any elevation of temperature, which was remarkable in view of the condition presented by the kidneys. On post-mortem examination, the right one enlarged, forming the tumor alluded to, and both studded with numerous and large chronic abscesses.

PERITYPHLITIS—SPONTANEOUS CURE.

Dr. Post presented a small fæcal concretion which had formed itself in the vermiform appendix, and which was discharged through an incision made in an abscess in the right iliac region. Dr. Post did not see the patient until the seventeenth day after the symptoms commenced, when the incision referred to was made. The concretion was found in the pus evacuated. The child was twelve and one-half years of age. Recovery was complete and rapid.

SACCULATED ANEURISM OF CEREBRAL ARTERY.

Dr. Janeway exhibited a small sacculated aneurism of the branch of the middle cerebral artery, but not the one which gave way and caused the death of the patient. It was removed from a man who was found dead. The autopsy showed hypertrophy of left heart and chronic nephritis. There was a large effusion of blood at the base of the brain, caused by a rupture of the left vertebral artery.

The Society then went into executive session.

Correspondence.

LAST DAYS OF THE HÔTEL DIEU, PARIS.

To the Editor of The Medical Record.

Sir:—The journals of the city announce the destruction of this ancient hospital as an event of the next week, and the transferring of patients to the new Hôtel Dieu directly opposite on the same square. A tour through the buildings this week with reference to its description prompts this letter. A venerable landmark in the hospital service of Paris and of Europe is to be torn down—a landmark which seems to have withstood French revolutions and Communes, and yields at last to that most natural of deaths—senility.

The Hôtel Dieu, with its garden, occupies one face of the Place du Parvis de Notre Dame. The opposite face is devoted to the new and simple hospital of the same name, a third to the venerable church of Notre Dame, and the fourth side of the Place to a new garrison of the *Garde Républicaine*. This Place is on the Island de la Cité, which is but little larger than its fellow, St. Louis, lying just above it; the two are connected together by an iron bridge of one span, and each is also joined to the right and left banks of the Seine by very short, beautiful spans. Behind Notre Dame, at the extreme point of l'Isle de la Cité, is the city morgue. In point of history no part of Paris has so much interest to the medical visitor as this little island. The day of its medical renown has, however, long since passed away. Handsomer hospitals, with ampler appointments, and in better locations, have been erected in the last two centuries, and the old Hôtel Dieu naturally has ceased to serve as pabulum to the ambitious hospital teacher and interne.

The hospital, as it now stands, consists of two buildings, the original one on the island, and a modern one on the left bank of the Seine, the two being connected together by a covered wooden way over the water, and an arched stone way under the Quai de Montebello, running by the river. The original building is the only one of the two we care to concern ourselves about. It has a gable end to the Place du Parvis de Notre Dame, mounted on heavy granite columns; above the roof floats the remnant of a French flag, the blue stripe alone remaining. On the Place the building has two stories, while on the river side there are four. It follows a bend in the river at this point, describing a gentle curve. At the water's edge is a dark, deep archway, guarded by a double gate, and approached by stone steps, leading up from the water, for the reception of patients or stores from the river. A description of the appearance of this part of the building is unnecessary. It is enough to note that it is ante-feudal in architectural style; and, were one ignorant of the uses of the old building to which this entrance leads, one might say as well, ante-feudal in its purpose. It suggests the bars and ambuscade and portcullis of the Inquisition. Entering by the main portal on the Place, one finds himself in a large vestibule, where hang oils of Desault, Bichat, Dupuytren, Thibault, and Moreau. A good bronze bust of Trousseau was placed here in 1867 by subscription. The next rooms in the gabled centre are devoted to the amphitheatre, professors, and to the reception of out-of-door patients. The long wards lie on the right of the centre, the left wing being very low, and devoted to laundry and cooking purposes.

A sketch of one ward describes them all. It is about forty yards long, has a width of ten yards, and contains at present on one side thirty, and on the other twenty beds. Some of these are cots stuffed with coarse hair, lying on the floor and occupied by patients. The mounted beds here, as in all the hospitals of Paris, are ornamented with curtains, clean and white and stiff enough, but open to comments on the ground of ventilation and as carriers of poison. The bed is a plain iron one, with corner uprights to support the curtains. In the Hôpital de la Pitié and La Charité I noticed an iron shelf at the head of the bed supported by the two corner uprights, within reach of the patient in a lying position; it is used as a depository of medicine, food, or the caraffe of wine. The iron bunk of the Hôtel Dieu is simpler. The ward without modern bathing or water-closet facilities, the floor is clean, but not waxed, as in most of the public hospitals of Paris; the externe wears a long white apron, reaching from the breast to the ankle, buttoned behind, and provided between the thighs with a deep, broad pocket for porterage of the ward

book and diagnostic instruments. The interne wears the same apron, and usually a black velvet cap, while the chef is recognized by the latter garment alone. To one familiar with the black gown in use in Germany and Austria, this white apron of Paris is a strange novelty; while it fails to add to the dignity of appearance of the wearer, it may be said to increase his fund of *amour propre;* it is, however, suggestive of your garçon at table d'hôte.

On the second floor of one of the hospital buildings is a statue in marble, life-size, soiled by the rust of years. I give you the literal translation of its French inscription, as it is the most interesting point of the whole hospital:

"In the year of grace 653, under the reign of King Clovis II., St. Landry, Bishop of Paris, caused to be constructed near the cathedral the hospital of the Hôtel Dieu, and maintained there the poor by his own fortune."

Fastened to the wall of the same room are several dark marbles, bearing titles of ordinances of different kings of France, who in different ways rendered aid to the hospital. Among them are quoted the following:

Philippe Auguste, 1208; Louis neuf, 1269; Philippe le Long, 1320; Charles le Bel, 1324; Henry II., 1554; Henry III., 1582; Henry IV., 1598; Louis XIII., 1614; Louis XIV., 1652; Louis XV., 1719; and Louis XVI., 1781.

On the left bank of the river, and behind the more modern portion of the Hôtel Dieu alluded to, is a very old-looking chapel, which is still devoted to the use of the patients of the hospital. One enters by a side-door into a small auditorium divided into a nave and two side-chapelettes. The chancel is amply but cheaply furnished; there are sitting and kneeling places; and the floor is of brick tiles. It is evidently not as old as the original hospital, and deserves but a brief sketch. The architecture is plain and mixed. While the gabled-end original building is after the Grecian order, the Roman here predominates. The arches of the broad nave are Roman; those of the narrow chapelettes are old Gothic; the columns are round, and, in fact, there is not a fluted column about any of the parts of the hospital. I allude to this, because the fluted column is very popular in the church and hospital architecture of Paris, even in instances where the material is plaster. The capitals of the columns are Dorian, with isolated leaves in plaster; the windows are high and narrow, of small squares of blue glass, bordered by squares of equal size of red glass, while some of them are arranged precisely *vice versa;* in the chancel window of the latter pattern is a cross made of squares of yellow glass; and in the end wall opposite the chancel is a variegated glass rosette high up between the joists. One fails to discover any dates or inscriptions about the chapel, which is easily explained by the fact that it is simply for the service of poor hospital patients. It cannot have stood longer than three or four centuries, though portions of its foundation indicate a much older style of masonry.

I have been minute in the allusions to the buildings of this venerable pile, as they excite chiefly an historic interest.

The following list of services is bulletined in the vestibule of the main building in the Place du Parvis Notre Dame. The appointments for the year 1877 for the medical staff are MM. Sée, Fauvel, Guéneau de Mussy, Frémy, Hérard, and Olmont; and for the surgical staff for the same time, MM. Richet, Cusco, and Guérin.

The new Hôtel Dieu will be open for the reception of patients August 1st.

The public lectures of the École de Médecine will close with this month; and the new year will begin November 1st.

The *petites nouvelles* of the journals announce the doctorate of a young Russian lady at the school of medicine after defending her thesis at the close of five years of study.

Prof. Darling, of New York, is attending the examinations at the Royal College of Surgeons, London: Dr. E. C. Seguin is among the Americans registered here.

Yours truly, P.

Paris, July 26, 1877.

THE ELASTIC BANDAGE USED TO PRODUCE ANÆSTHESIA IN MINOR AMPUTATIONS.

To the Editor of The Medical Record.

Sir:—Having occasion to amputate a finger at the articulation, between the first and second phalanges, I wound an elastic cord tightly around the member, driving the blood completely before the successive turns of the elastic.

On removing the bandage from the end of the finger to the point at which it was desired to amputate, the sensibility was so much deadened that, by the application of ether spray for a few moments, around in the line of incision, the operation was finished without the patient's knowing when it was done. The stump healed nicely, and although both the extensor and flexor tendons were divided, the patient, by practice, which was insisted upon, can flex and extend the stump readily out of harm's way. The flexion is made through the attachment of the *lumbricalis muscle* in front, the extension through the adhesion by inflammation of the tendon of the *extensor communis digitorum* to the sheath on the dorsum of the first phalanx.

The method is certainly preferable to the more tedious use of general anæsthesia, and while I had never seen any commendation of its use to the profession, I suspect it is not a novel process.

Jno. A. Wyeth.

Obituary.

PROF. ALPHEUS BENNING CROSBY, M.D.

new york.

The startling news reaches us that Prof. A. B. Crosby, of this city, died August 10th, from apoplexy, at his country-seat, Hanover, N. H. For a few days previously he had been somewhat ill, but was able to be about, and no concern as to his condition was manifested, either by his friends or himself.

He was born in Gilmanton, N. H., February 14, 1832, and was consequently, at the time of his death, forty-five years of age. He received his academic and medical education at Dartmouth College, under the guidance of his distinguished father, the late Dr. Dixi Crosby. Shortly after his graduation he was appointed lecturer, and afterwards Professor of Anatomy at Dartmouth. About the same time he received a similar appointment in the Medical Department of the University of Vermont. In 1871, he was tendered a Professorship in the Long Island Medical College, which he accepted, and which appointment was soon followed by the Professorship of Anatomy at Belle-

vue Hospital Medical College. During the late rebellion he served as surgeon to a New Hampshire regiment, and while stationed in Virginia met his wife, Miss Mildred Smith, of Virginia, to whom he was devotedly attached, and who, with three children, survives him. Soon after his connection with Bellevue Hospital Medical College, he was appointed Surgeon to Bellevue Hospital, both of which positions are made vacant by his death. Last year he was elected President of the New Hampshire Medical Society, a distinction of which he was very proud, conferred as it was by those of his associates with whom he had labored in his earlier career. As a lecturer he was a success from the start, combining rare descriptive powers with a sparkling and impressive humor. In fact, his reputation as a teacher and surgeon, although deservedly great, was scarcely equal to his social popularity, for he was one of the most genial of men. There was cheerfulness in his very presence; his conversation abounded in the richest humor, and when called upon on convivial occasions to respond to a toast, he never lacked for a droll story.

Professor Crosby's library contributions were mostly on surgical subjects, either as papers read before the several medical societies of which he was a member, or as contributions to medical journals. His first paper after coming to New York was upon the case of removal of scapula and clavicle by his father, the first of its kind on record. In his description of the operation, and other details, he manifested a reverential affection for his father's memory worthy of himself and his subject. Exceedingly frank and friendly himself, he naturally had hosts of friends, who respected him for his many rare abilities, and who loved him for himself. With such his loss is irreparable.

His funeral, which was largely attended, took place on Sunday, August 12th, at Hanover, N. H., where his remains were interred.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 5 to August 11, 1877.

Campbell, Jno., Major and Surgeon. Leave of absence extended twenty days. S. O. 178, Div. of the Atlantic, Aug. 10, 1877.

Turrill, H. S., First Lieut. and Asst. Surgeon. Leave of absence extended three months. S. O. 168, A. G. O., Aug. 8, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending August 11, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Aug. 4.....	1	5	36	3	31	22	0
Aug. 11.....	0	13	48	3	28	18	0

Roofless Theatres.—The *Lancet* advocates roofless theatres for better ventilation.

Private Lunatic Asylums.—Considerable discussion has taken place in Great Britain regarding the right of persons to care for lunatics in private houses. Notwithstanding it is acknowledged that public asylums are better, the Englishman's idea of his private "castle" overcomes all conscientious scruples.

A Case of Asphyxia from Coal Gas—Recovery.—C. J. Cleborne, M.D., Surgeon to Naval Hospital, Portsmouth, writes: "On the 20th of September, 1876, a man descended into a well fourteen feet deep in the gas-house of the Navy Yard at Kittery, Maine, for the purpose of making repairs upon a six-inch pipe, and while employed in unscrewing the valve he was instantly suffocated by the issue of a volume of freshly made gas. Fortunately he was seen to fall by a fellow-workman; and as it was considered dangerous to go down into the well, he was fished for with an iron hook attached to a rope which happened to be at hand.

"When about half way up the man's pantaloons (in which the hook had caught) broke, and he fell, head foremost, into a layer of pitch or coal tar some two or three inches deep at the bottom of the well. No time was lost in rehooking him this time fortunately in his "wooden leg," and he was brought to the surface apparently dead.

"Sylvester's method of inflation was immediately used, and I soon had the satisfaction of seeing the man restored to consciousness. No untoward result followed beyond a smart attack of bronchitis, caused by the irritant action of the gas.

"Perhaps the unintentional performance of Nélaton's inversion method—the man falling head downwards, and remaining in that position until he was brought to the surface—may have been the means of saving his life."

Dr. L. A. Sayre, of this city, is entertaining the medical public of Great Britain with his description of the plaster-of-Paris treatment for spinal curvature.

The Size of London.—London, the greatest city the world ever saw, covers, within a fifteen-mile radius of Charing Cross, nearly 700 square miles. It numbers more than 4,000,000 inhabitants. It comprises 100,000 foreigners from every quarter of the globe. It contains more Roman Catholics than Rome itself; more Jews than the whole of Palestine; more Irish than Dublin; more Scotchmen than Edinburgh; more Welshmen than Cardiff. It has a birth in it every five minutes, and a death in it every eight minutes; has seven accidents every day in its 7,000 miles of streets; has 123 persons every day, and 45,000 annually, added to its population; has 117,000 habitual criminals on its police register; has 23,000 prostitutes; has as many public-houses as would, if placed side by side, stretch from Charing Cross to Portsmouth; has 38,000 drunkards annually brought before its magistrates; has as many paupers as would more than fill every house in Brighton; has 60 miles of open shops every Sunday; and has an influence on the world represented by the yearly delivery in its postal districts of 238,000,000 letters.—*Med. Press and Circular.*

Connecticut Medical Society.—This Society has published its yearly volume of Transactions within two months after its meeting. This only shows what can be done by the right sort of Publishing Committee.

Small-Pox in London.—The history of the epidemic of last year is to be investigated with the view of more legislation upon the subject.

Original Communications.

SOME PRACTICAL POINTS IN THE TREATMENT OF STONE IN THE BLADDER.

WITH AN ANALYSIS OF EIGHT NEW CASES.*

By JOHN W. S. GOULEY, M.D.,

PROFESSOR OF DISEASES OF THE GENITO-URINARY SYSTEM IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK; SURGEON TO BELLEVUE HOSPITAL, ETC.

My main object in presenting this short paper to the Society is to elicit discussion and criticism from our fellow-members and delegates, that we may all enjoy the benefit of their opinions and experiences on a subject which is always interesting and important to practitioners of our art. With this in view, I propose to sketch out a few practical points in the management of stone in the bladder, about each of which I am desirous of obtaining additional light. They relate to exploration of the bladder, to the selection of operation, and to the after-treatment.

I have added to this an analysis of eight cases operated upon since my first report.

I.—EXPLORATION OF THE BLADDER.

In a paper read last year, I called the Society's attention to the importance of detecting stone in the bladder during the early period of its formation, and to the influence that such early detection exercises upon the selection of the operation. I have now only to add a few facts relating to certain details of vesical exploration. The uncertainty of the information obtained by the use of sounds of large curve in the examination of the bladder, led Civiale and others to employ a light lithotriptor for the double purpose of sounding for and of measuring the stone. But sometimes a very small stone or a fragment will not at first be felt. In that case Brodie suggested that all search be stopped, and that the jaws of the lithotrite be simply opened, while the female blade is kept close to the bas-fond, when, after sharply striking the handle with the fingers of the right hand, the stone or fragment will fall within the grasp of the instrument to be measured or crushed. Afterwards Mercier constructed his sound with a short, elbowed beak and long shaft. This sound has been variously modified, but the principle remains the same. The object of this form of beak is to enable the operator to turn it in several directions and examine every accessible part of the bladder. He has since made a hollow stone-searcher on the same general plan, but much larger at the extremity of the beak, which is flattened laterally so as to present a very broad surface, in the centre of which, on each side, is a cup-shaped depression, through which an eye has been cut. By this arrangement the urethral mucous membrane is protected from the eyes of the instrument, which can perform the office of catheter as well as of sound. With this searcher it is much easier to detect small stones than with the former.

While the instrument is in the bladder, it is sometimes necessary to diminish or to increase the quantity of fluid. For this purpose, the stopper at the distal end of the hollow sound is removed and the urine allowed to flow, or the nozzle of a syringe is inserted and warm water thrown in.

Position of the patient in sounding for stone has its importance, and every imaginable posture has been made use of in obscure cases. For examination in the recumbent posture, Reliquet, of Paris, has contrived a very ingenious portable apparatus which can be used on any bed, and by which the pelvis can be elevated and tilted to one side or the other. I have lately used this apparatus in several instances, and consider it of material aid in exploring the bladder and in performing lithotripsy, especially in cases where there exists prostatic hypertrophy and a deep vesical bas-fond.

II.—SELECTION OF OPERATION.

In the management of cases of vesical stones, as in that of other surgical ailments, the exercise of sound judgment is quite as important as the highest degree of operative skill, and the two should go hand in hand. It seems to me unwise to rely entirely upon any single method of treatment or of operation, for in reality there is no exclusively *best* method in surgery, no particular one that should be used in all cases even of a kind. It is often said, and perhaps with much truth, of surgeons who have some pet operation, that they select their cases for this operation and reject all others that appear unfit for it, or even unpromising.

Judicious surgeons ride no hobby, but select, from among the many known operative procedures, that which, after due consideration and study of each case, is likely to be indicated. Some authorities take the ground that the operator should select the operation with which he is most familiar. They speak of excellent lithotomists who are bad lithotriptists, and *vice versa*. Can this be called sound teaching? Suppose, in a certain case, the particular operation of the one-operation surgeon to be contra-indicated, could any but the worst result be anticipated? The one-operation man may be an excellent operator, but very unsuccessful with his one operation, and many of his patients die, while another surgeon, who may not operate so brilliantly, but makes a proper selection of operation, cures nearly all his cases. Is not every surgeon who wishes to treat calculous patients in duty bound to labor hard and long to familiarize himself with all the known methods, and if he cannot master them all, is he justified in undertaking any? If he acts in accordance with the principles of sound surgery, he cannot be a pure lithotomist, lithotriptist, or perineal lithotritist, nor can he even have any particular hobby in lithotomy regarding one method or another, but is competent to choose the operation which appears, after mature consideration, most suitable to the case. We all know that one patient will bear immediate surgical operation, be it lithotomy or lithotripsy, while another of the same age, and, on a superficial examination, apparently in the same state, will be killed by precisely the same treatment as that resorted to in the first case, whereas a few days of rest and other preparatory treatment would have insured success. Is it not better to prepare all cases for operation? Sound judgment and experience, I will repeat, are the only guides in such circumstances.

While I believe that lithotripsy should be the general operation in adults under certain conditions, I am equally firm in my belief that neither this nor any other method will ever become universal, even in adults alone. There will always be a large class of cases in which lithotripsy will be indicated; there will always be cases which will require the knife; there will always be many calculous patients under ten years of age, the majority of which will be cut; there will always be large stones requiring a combination of the cutting and crushing operations; and there will always

* Read before the Medical Society of the State of New York, June, 1877.

be cases of troublesome calculous cystitis demanding a free incision of the neck of the bladder, even if the stone be small.

These ideas may be formulated thus:

1st. There is no best method of operation or of treatment.

2d. All the operations are good where they are indicated, and bad where they are not.

3d. The operation should be selected for the case, and not the case for the operation.

Permit me to illustrate further some of these thoughts by placing in parallel two widely differing cases: A patient of middle age has in his bladder a stone of not more than three-fourths of an inch in diameter, which is causing cystitis with inordinate vesical and urethral irritability and general neurosis. Each catheterism is followed by alarming rigors and other bad symptoms. If in this case all available means of medical and topical treatment fail to control these untoward symptoms, lithotripsy would be decidedly contra-indicated, and if performed might even prove fatal, while some method of perineal cystotomy, by at once relieving the bladder of the foreign body, and affording free drainage to the inflamed organ, would be eminently successful.

Again, an elderly man, with enlarged prostate, has been under observation for some time, and has declined to submit to an examination for stone, because he will not believe that the slight symptoms which he has so long been experiencing can depend upon the presence of a stone, but he finally yields to the advice of his surgeon, who, after having drawn off a few ounces of residual urine loaded with slimy pus, tells him that as the slime will not for some hours accumulate sufficiently in the bladder to protect it from the stone, his symptoms will be aggravated, and that the next urine passed will probably be bloody. All this he of course doubts until it is realized, and then he is ready and anxious for the exploration, which reveals a stone one inch and a half in mean diameter. The patient is in excellent moral and physical condition, the urethra is ample, and the bladder tolerant. The course of preparatory treatment is short, and the stone is readily grasped by the lithotrite, under which it easily crumbles, and a cure is effected after six or seven sittings, not an untoward symptom having occurred. In this case any method of lithotomy would have been much more dangerous.

The selection of operation for stone is now made by many out of these three procedures, namely, lithotripsy, lithotomy, perineal lithotrity.

Each operation, as before said, has its particular indication; where one is indicated the others are not.

The indications for lithotripsy are so clear to the surgical mind that it would be needless for me to speak of them on this occasion. But at the risk of repeating myself too much, I must protest against the exclusive use of any one method of lithotomy, even when lithotomy is indicated.

Median lithotomy is advocated, and properly, too, by many of us, in the majority of children; but we know that among these children there will always be some cases which will require incision of the vesical neck, and this is indicated in cystitis with great irritability, and the frequent passage of slimy urine. The same may be said of adults.

I shall leave you to discuss the respective merits of the several other cutting operations.

Let me now recall the Society's attention to the very great importance of fragmentation of large stones in lithotomy, as there are still too many surgeons who incur the risk of removing such stones entire. The laceration of the vesical neck and prostate, which occurs during violent extraction of a large stone, is known to be one of the most frequent causes of mortality in lithotomy, and strange as it may seem, the practice of forcible extraction is still current. The combination of lithotomy and lithotrity, designed to obviate this forcible extraction, though insisted upon by Malgaigne, many years ago, was little practised until the last decade, when it was revived and greatly improved by the late Professor Dolbeau, of Paris, who has made of it practically a new operation, to which he has given the name of perineal lithotrity.

Dolbeau advises dilatation rather than incision of the prostate, and this is wise, particularly in old men; but the essential features of the operation are the breaking up of the large stone and the extraction of all the fragments through a small perineal wound at a single sitting. I feel confident that this method will give better results than have ever been obtained by others in cases of large vesical stones.

III.—THE AFTER-TREATMENT.

The mere removal of a stone by any operation is often insufficient to cure the existing cystitis. Drainage of the bladder for six weeks or more after perineal cystotomy will generally so relieve great vesical irritability that the wound may be allowed to close, but then there is need of further treatment to complete the cure.

A large class of cases of calculous cystitis are curable by median lithotomy, and by perineal lithotrity, followed by vesical irrigations. There are many cases treated by lithotripsy in which the cystitis continues for a long period; and the opponents of the operation are too ready to attribute it to lithotripsy, losing sight of the fact that this inflammatory condition had existed long before the operation, which has often greatly mitigated and rendered it much more controllable.

One of the reasons for the continuance of this cystitis is neglect of after-treatment. The French often begin to treat the cystitis before operating, and continue the treatment after the operation until all traces of inflammation disappear. Stagnation of urine is of very common occurrence in calculous cystitis; patients seldom completely empty the bladder before or after some of the operations for stone, and as long as there is stagnation, even only to a small fraction of of an ounce, cystitis will continue, and in a few months may become obstinate, and even give rise to a phosphatic stone. Of late the English have adopted the French practice of constantly withdrawing the residual urine, and of beginning vesical irrigation immediately after lithotripsy.

Many of us in this country now make it a rule to instruct patients to draw off the last drop of residual urine twice daily, and to irrigate the bladder, and enjoin them to continue this practice until the urine is clear and passed at normal intervals, and tell them besides, that to neglect this is to render themselves liable to the recurrence of stone. In some cases I find it necessary to irrigate the bladder with nitrate of silver solution (weak), and sometimes, according to Guyon's plan, but in the majority tepid water or the borax solution will suffice. An interesting clinical fact, which is frequently overlooked in many cases treated by lithotripsy, is the subsidence of the cystitis after the first sitting; sometimes it is the reverse, but if the stone does not require for its complete destruction more than three sittings, at the end of the third sitting there is scarcely a trace of cystitis perceptible. Notwithstanding this, I think it is well to use the catheter to empty and perhaps to irrigate the bladder.

One of the main points in after-treatment is to guard against the recurrence of stone. Whatever may have been the original cause should, if possible, be removed. If, for instance, the stone has been of diathetic origin, such hygienic rules and medical treatment should be prescribed as the case requires. The existing dyspepsia should be relieved, and the the chylo-poietic viscera put, as soon as possible, into their normal condition. In addition to attention to diet, to the functions of the skin, to exercise, etc., I am in the habit of giving a few brisk cathartics, then to prescribe a laxative and alterative pill, after the following formula:

℞. Resinæ podophyll	gr. v.
Ext. fl. ipecacua	gr. v.
Ext. nux vomic. alch.	gr. v.
Hydrastinæ	gr. xxx.
Leptandrinæ	gr. xx.
Ext. colchici acet	gr. xx.

M. et div. in pil. xx.

S.: One pill every night.

After the patient has taken forty or more of these pills, I order a small dose of Friederichshalle bitter water, or the Hunyadi Janos every morning half an hour before breakfast, or the following:

Sodæ sulphatis	℥ i.
Ammonii chloridi	ʒ ss. M.

S.: To be dissolved in a pint of water; dose, one tablespoonful in half a glass of water every morning, half an hour before breakfast. This may be continued for several months. A grain of sulphate of iron may be added to each dose.

ANALYSIS OF EIGHT CASES OF VESICAL STONE.

Since my first report to this Society at its last meeting, eight cases of stone have been treated by me. Of these, one was 3½; one, 35; one, 45; one, 54; three, 62; and one, 64 years of age.

Six cases were treated by lithotripsy (vesical); one by urethral lithotripsy; and one by lithotomy. All of the six cases treated by lithotripsy had had troublesome cystitis for several years before the operation; one had urethral strictures which required dilatation before the operation could be done; and one had recent strictures requiring divulsion. In one the meatus urinarius had to be enlarged by incision. Four were suffering from prostatic enlargement. One had been lithotomized five years, and lithotriptized one year before.

In one case the stones (two) measured three-sixteenths of an inch; in two cases five-eighths of an inch; in two cases, six-eighths of an inch; and in one case exceeded one inch in mean diameter. There was one stone in four cases; there were two stones in one case, and three in one case.

Two of the patients had had three or more attacks of nephritic colic; one had had six attacks; two gave no distinct history of nephritic colic, and in one case it was clear that the concretions were formed in the bladder, and not primarily in the kidney.

In four of the cases the calculous affection was of three or more years' standing.

Each case underwent the customary preparatory treatment.

The bladder was freed from detritus after one sitting in one case; after two sittings in one case; after four sittings in one case; five sittings in two cases; and seven sittings in one case.

One case was followed by a rigor on the day after the third sitting, the others had no rigors.

The time consumed in the sittings varied from one to five minutes; five-sixths occupied less than five minutes each.

The lithotrite was introduced twice in one sitting, in one case, and in the others the instrument remained in position, and from one to twenty-seven crushings were made.

The intervals between the sittings varied from two to twelve days.

Only one patient in each of two sittings was etherized.

In one case nearly all the detritus had to be withdrawn by an evacuating catheter. The detritus was spontaneously expelled in four cases; and in one case relieved at one sitting the detritus (four grains) came away in the beak of the lithotrite. Impaction of fragments in the urethra occurred once in two cases, and they were readily extracted with Mathieu's forceps; in one of these cases the fragment had to be crushed with the same instrument. The amount of detritus collected varied from 4 to 154 grains. In only two cases the cystitis has continued. These two require constant catheterism on account of inability to empty the bladder.

The seventh case was treated by urethral lithotripsy, and was a man forty-five years old, with a urethral stricture at the peno-scrotal junction, behind which a calculus had been lodged for two weeks, and could not be displaced by the patient. Twice before a small stone had been arrested at the same point in the urethra; the first time the man succeeded in "working it out," but on the second occasion he failed, and the stone was removed after external incision. When I saw him, he was suffering from considerable urethral irritation but not from retention of urine. The stricture was divulsed, and the stone crushed with Mathieu's alligator forceps, in the jaws of which some detritus was brought out, while the remainder was washed away by the current of urine; most of it was lost, and only two grains preserved. The patient made a good recovery.

The only patient (three and a half years old) that was lithotomized (median operation) died of pyæmia. This was a case of unusual difficulty, on account of a pre-existing false passage, which was first laid open, but it was found impossible, after careful manipulations, to reach the bladder. The completion of the operation was deferred until at least partial obliteration of the false route should take place, but the patient succumbed from pyæmia on the twenty-second day. No autopsy was permitted.

Including twenty-eight operations from my report of last year, my record stands as follows:

Nineteen lithotripsies	one death.
One urethral lithotripsy	
Eleven lithotomies	one death.
Five perineal lithotrities	one death.

SUPPURATIVE ARTHRITIS FOLLOWING ACUTE RHEUMATISM.

By V. P. GIBNEY, M.D.

The specimen * presented is the larger portion of the patella exfoliated from the right knee of a German lad nine years of age, who was admitted to the Hospital for the Ruptured and Crippled, March 8, 1877. The point of especial interest centring in the case is the fact that a rheumatic joint resulted in so profuse a suppuration. For acute rheumatism to often be-

* This specimen was presented at the meeting of the New York Pathological Society, held May 9th, but being accidentally omitted from its proper place in the report is now published in its present form.

come chronic in the adult is not at all uncommon, for it to become chronic in the child is comparatively rare, but when it assumes a suppurative form then an unusual interest attaches to the case and a thorough analysis is demanded.

Whether the rheumatism in this instance was only one stage of the suppurative arthritis, or whether the rheumatism by its specific influence put the system in a favorable condition for the subsequent arthritis on the slightest provocation, is a question the solution of which I confess my inability to reach, and have accordingly brought it before the members for a full expression of opinion.

The history is as follows:

The boy belongs to a family of eight, only one of whom have died, the cause of this death reported as diphtheria. The family history, paternal and maternal, on a pretty thorough examination, is found unexceptionally good, no hereditary diseases being discovered; the hygienic surroundings have been moderately fair, the health during infancy was not good, and a severe attack of pneumonia (from the history given) when he was one and a half years old, was followed within two or three months by a prolonged pertussis. From all these, however, he seemed to recover perfectly, and enjoyed good health uninterruptedly until the beginning of the present year. One day, about the middle of January, he came in from school complaining of a sense of weariness and pains throughout his bones; went to bed feverish, and on the following morning was unable to leave his bed. The joints became painful, began to swell, and within a few days a typical case of acute multiple rheumatic arthritis was present. A physician was in attendance for a week or ten days, convalescence set in, and about eight days after the doctor had discontinued his visits, seventeen days from the invasion, the right knee, which had not up to this time become entirely free from pain and a trifling amount of swelling, suddenly became very much enlarged, violent pain accompanied, and a severe relapse was thought to be imminent. A surgeon was called in, who prescribed rest and evaporating lotions, but a spontaneous opening in a few days gave exit to a large quantity of offensive pus. Emaciation became marked, and on presentation at the hospital his condition was that of a patient well-nigh exhausted from some acute disease. He was totally unable to stand alone, the normal contour of the right knee was completely effaced, the skin was bluish in appearance, the veins engorged and tortuous, while sloughing had taken place around two openings, leaving ugly ill-conditioned ulcers. Motion was preserved, *i.e.*, to as great an extent as the infiltrated periarthritic tissues would allow; no pain was elicited on a careful attempt to approximate the articular surfaces, the patella was movable, and in view of all the facts I made a diagnosis of periarthritis consequent on acute rheumatism. The treatment was tonic medication, and simple dressing to the ulcers. I neglected to mention the peculiar expression given to the eyes. Such an expression is difficult to describe, but is just such as one observes in blondes who are decidedly strumous. The case progressed favorably until March 16th, when the swelling increased, the temperature rose to 103½°, and an additional abscess seemed to locate itself in the popliteal space. This was subsequently evacuated, and nothing of special note was observed till April 21st, when an extensive abscess filled the whole anterior portion of the thigh, a carious bone was seen protruding from the ulcer in prepatellary region; this was seized with a pair of dressing forceps, and the specimen now before you was easily removed. An apparatus was applied, the pus being first thoroughly evacuated and stimulants freely added to the tonics already being administered.

There is no question now about the joint being involved, and the course pursued by the disease seems clearly shown by the history as recorded, viz., a suppurative periarthritis extending into the joint, necrosis, caries, etc.

The boy is at present in a better condition than the severity of the lesion would seem to warrant. The sac or sacs are being washed out twice daily with a solution of acid. carbolic. 3 i.–Oi., new abscesses are opened by incision as soon as they form, the limb is kept in a semi-extended position, and the prognosis on the whole is by no means as grave as it was a week ago.

HALLUX VALGUS TREATED BY EXSECTION OF THE METATARSAL BONE.

By G. H. BALLERAY, M.D.,

PATERSON, N. J.

EDWARD F., aged forty-nine, a resident of Port Jervis, and a horse-jockey by occupation, was admitted into St. Joseph's Hospital January 3, 1877, with the following history:

Three years ago a horse stepped on his left foot, causing a severe injury to the metatarso-phalangeal joint of the great toe. The joint became immensely swollen and painful, and in the hope of relieving this condition, a variety of liniments, poultices, ointments, etc., were used. After the subsidence of the acute symptoms the patient found that there was great deformity left, the joints appeared much enlarged, and the great toe was abducted and twisted so that the plantar surface looked towards the outer border of the foot, and that portion of the great toe near the web rested upon the dorsum of the second toe, while its free extremity was drawn up to an angle of about ninety degrees with the foot. He had not been able to wear a boot since the accident, without having removed a sufficient portion of the top to prevent pressure on the great toe, and even then his sufferings were very great when he walked. He had consulted a number of physicians without relief, and he came to the hospital with the intention of having the toe amputated. In the hope of giving relief without sacrificing the toe, I divided the tendon of the extensor proprius pollicis subcutaneously, and strapped the toe to a splint applied to the plantar surface of the foot, having previously brought it down to, as nearly as possible, its normal position. This treatment relieved the deformity to a considerable extent, but did not, of course, do away with the enlargement of the joint, which remained such as to preclude the possibility of wearing a boot without intolerable suffering, nor was the *abduction* relieved completely by the tenotomy, etc. I concluded, therefore, that probably the best thing I could do for the patient would be to "sever the offending member." Having requested my friend, Dr. E. J. Marsh, to view the case with me, he suggested excision of the joint instead of amputation, and referred me to the cases reported by Drs. Hamilton and Rose, of New York, J. H. Pooley, of Yonkers, and A. C. Girard, of U. S. A., and published in the MEDICAL RECORD August 1, 1873, April 15, 1874, January 9th and May 29th, 1875. I decided to act upon the suggestion of Dr. M., and accordingly, on the first day of February I proceeded to perform the operation. An incision down to the bone was made, commencing about three-quarters of an inch below the inner side o

the metatarso-phalangeal articulation, and extending up along the inner border of the metatarsal bone to a point about an inch and three-quarters above the joint; the soft parts were then dissected away from the bone, the ligamentous structures divided, a chain saw passed around the metatarsal bone, and three-quarters of an inch of its distal extremity removed. The soft parts were then brought together with carbolized silk sutures, and a mixture of carbolic acid and Canada balsam (one part to eight) on lint was applied to the wound. I had forgotten to bring an Esmarch's bandage with me, but Dr. Marsh extemporized one from an ordinary bandage and a piece of rubber tubing, which answered the purpose perfectly, rendering the operation *absolutely bloodless*. About one-half of the wound healed by first intention and the remainder by granulation, and the patient left the hospital with a useful and shapely foot, except that the great toe was about half an inch shorter than its fellow. I think that the chain-saw will prove to be a far better instrument for dividing the bone in these cases than either the bone-cutter or Hey's saw. Notwithstanding the unfavorable result in Dr. Pooley's case, which he evidently attributes to the use of Esmarch's bandage, I think that the advantage to be derived from its use in these cases is such that we are not warranted in discarding it, simply because unfavorable results have been known to follow its employment, unless it is conclusively shown that the evil results are *directly attributable* to the use of the bandage.

GONALGIA, OR HYSTERICAL ARTHRALGIA.

By C. J. CLEBORNE, M.D.

SURGEON U. S. NAVY.

The peculiar affection, known as "knee-ache," is not uncommon among women of relaxed fibre, and in conditions of general debility in both sexes. It is usually regarded as a form of rheumatic gout or neuralgia; but I have found it as frequently associated with uterine disorders and hysteria as in cases of gouty or rheumatic diathesis.

In some cases the knee only is affected, in others a dull, diffused, aching pain occurs in the wrists, soles of the feet, ankles, heels, and toes. Sometimes the pain is paroxysmal, coming on suddenly during the day or night, lasting a few hours or several days, and is usually accompanied with more or less pain on movement, and tenderness on pressure.

The patient often complains of the "knee giving way" and of a "cracking sensation" in the joint, and persons have even resorted to mechanical appliances under the impression that the knee needed support. Occasionally the joint is found pale, puffy, or swollen, and there may be hyperæmia and hyperæsthesia with change of temperature, and a tendency to cramp of the sural muscles.

In women who have borne children rapidly and whose nervous systems have been broken down, the left leg or knee is most commonly affected, and there is a strong tendency to spasm of the muscles of the lower extremities, with involuntary contraction of the toes, and a peculiar nervous twitching, especially noticeable during sleep. In nearly all these cases antineuralgic remedies alone have but little permanent effect, while flying blisters, stimulating embrocations, and lotions are almost useless. The treatment that promises most speedy relief is a milk diet, the mineral tonics (with small doses of colchicum in gouty cases), change of air and scene, douching the painful joint alternately with hot and cold salt or sea water; the use of Chapman's "spinal bags," and last, but not least, covering the affected part with a sheet of thin rubber.

The rapid effect of the latter in some cases is remarkable.

If the knee-joint is affected, a close-fitting knee-cap of sheet rubber should be worn at night, and may be removed in the morning, if all pain and weakness has disappeared, or it may be kept on until it induces a decided eruption or irritation of the skin, when it should be removed and the part washed with alcohol or bay rum. The prompt and efficient relief which the sheet rubber has given in several cases of gonalgia which have come under my notice justifies a further trial of its merits in this painful and annoying affection.

Reports of Hospitals.

HOSPITAL OF UNIVERSITY OF PENNSYLVANIA.

CLINICS OF WM. PEPPER, M.D.,

PROFESSOR OF CLINICAL MEDICINE IN UNIVERSITY OF PENNSYLVANIA.

(Reported by Samuel M. Miller, M.D.)

SPLENIC LEUKÆMIA.

C. L., aged 30, a carter, born in Ireland. Three or four years ago he was a hard drinker. Six weeks ago his abdomen began to swell. His feet have been occasionally swollen. Epistaxis has been frequent. There has been no palpitation or shortness of breath. He passes very little water, but it contains no albumen. Four weeks ago he had an attack of vomiting. There is some bronze discoloration of the skin. A fluctuating impulse and some bulging of the præcordial spaces are evident. There are three ruptures in the line of and near the umbilicus.

The man came before the class for examination on June 2d. On percussion, dulness was developed on the left side, over an ovoid-shaped space, extending from well up in the left hypochondrium across and down to below the level of the umbilicus. There was quite marked humoric resonance over the posterior edge of this region. There was evidently a solid mass slightly free to move in the abdominal cavity; its shape was very characteristic. No fluctuation could be obtained. The liver was carefully examined, and was entirely normal. The intestines were pushed up to the edge of the ribs. The blood, upon examination under the microscope, showed no unusual number of white corpuscles. The heart's action was labored, but there was no murmur. The organ was pushed slightly to the right. There was quite marked ascites. The man was sick-looking, his tongue roughened, appetite poor, and indigestion frequent. He continually complained of flatulence and a feeling of weight in his stomach. His bowels were generally moved three or four times daily. There has occasionally been blood in the fæces. There is no history of malaria. Clearly there is a splenic tumor here, with local peritonitis and ascites. The enlargement of the spleen is enormous. The ascites has probably been produced by the local peritonitis or the interruption of the circulation. There is no history of syphilis. The kidneys and liver are not waxy. The man is too young for cancer of the spleen, and primary carcinoma of this organ is most rare. The various symptoms, epistaxis, indigestion, enlargement of the

spleen, and general loss of health and strength—all point towards a splenic leukæmia. This is one of those cases of pseudo-leucocythæmia. The increase of white corpuscles, not present here, is always a matter of stage. The fundamental trouble is a defect in the elaboration of the blood. I have suggested the name *anæma tosis* (see *Am. Journal of Med. Sciences*, April, 1877) for this group of diseases. The defective elaboration of the vital fluid may be localized in the spleen, lymphatic glands, or marrow of the bones. Each of these may undergo hypertrophy and degeneration.

The treatment of this group of diseases can be only palliative and for the prolongation of life. Rest in bed is generally needed, with careful attention to diet, and avoidance of gastric irritation. Diet should be mainly composed of milk, with lime-water. If there be constipation, mild laxatives and enemata may be used. For the vomiting, iced seltzer-water, chlorodyne, subnitrate of bismuth, and faradization with mild currents, are indicated. Among medicines may be ranked digitalis, alcohol, cod liver oil, iron, phosphorus, and nitrate of silver. Iron may be administered in the form of the tinc. of the sesquichloride, in doses of from ℥ xv.–xx. Phosphorus and nitrate of silver are of use for the irritation of the bowels.

It is needless to say that the disease has a necessarily fatal ending.

MENOPAUSE.

Case 1.—M. McI., 51; born in Ireland; has had no children. She stopped menstruating three years ago. Since then she has suffered from a tendency to polysarca, with vague rheumatic pains running through her body. Her appetite is good; bowels costive. She suffers from pain in the side and back, palpitation, dizziness, flushing of face, and slight shortness of breath. There is no cardiac murmur, and no albuminuria. Her menses have been irregular for the last fifteen years. She has gained fifty pounds in weight, and is very stout.

Case 2.—J. W., 45; born in Ireland. Has suffered from epistaxis and pain in left side since last summer. Frequent leucorrhœa within last nine months. Menstruation irregular since last summer. Appetite poor; bowels regular. Has been troubled with shortness of breath, palpitation, cough, flushings of face, and occasional pains in head. She has lost both flesh and strength. Lately the epistaxis has ceased. The menses are very rare at present, and last only a few hours at a time. Her youngest child is ten years old.

It will be noted, in considering these two cases, that in one there has been slow cessation of menstruation, good appetite, and marked gain in flesh; while in the other the menses have stopped almost abruptly, and appetite, flesh, and strength have all gone down.

A great many and very various disturbances of health may exhibit themselves in this disease: Losses of blood; disturbances of digestion; marked nervous symptoms; disturbances of circulation; loss of flesh, or the reverse.

Ovulation fixes woman's place in the animal economy. With the act of menstruation is wound up the whole essential character of her system. At the "change of life" we recognize a transformation in woman's moral, emotional, and sexual character. There is no period of life, except that of early childhood, in which such peculiar conditions arise.

Let us consider the symptoms in order.

I. *Hemorrhages.*—Some mode of establishing an equilibrium is necessitated upon the stoppage of the natural menstrual flow. The circulatory fluid is in excess and must find some vent, hence piles, copious epistaxis, hæmatemesis, and hæmoptysis as resultants.

II. *Dyspeptic Symptoms.*—These are very varied, troublesome, and hard to relieve. Women at this time are apt to overeat themselves. The same amount of blood-making food is consumed, and less blood is needed. Therefore, we find (1) actual indigestion, or (2) plethora. There is, in the first case, marked predominance of gastric nervous symptoms, such as heartburn, gastralgia and acidity, headache, disturbed vision and pains over the body, paroxysms of neuralgia it may be. Vomiting is not common. Reflex disturbances, such as fixed pains in the head, are usual. The tongue is large and flabby, the liver congested and inactive. The complexion and conjunctiva may be sallow. Eruptions, such as acne, and crops of pimples arise. The bowels are torpid, and so a chronic catarrh of the intestines may be set up. The second set of symptoms are connected—the assimilation of organic matter into the blood. It may add to the mass of blood and develop plethora, or it may form a low grade of tissue and cause obesity. Such persons suffer from a great sense of fulness and pulsation. The vessels of the head and neck beat and throb, particularly on bending down; there is giddiness and possibly confusion of mind and loss of memory. The pulse is full, hard, sounding, and slow; the urine high colored, and contains an excess of organic matter. There may be oppression of the chest and fulness at the base of the brain. Polysarca comes on. The woman increases to double her former weight in the course of a few years.

III. *Moral and Emotional Changes.*—Women may become raving maniacs until the balance is restored. They grow nervous, fidgety, petulant, and hard to get on with. They indulge occasionally in the most peculiar and unnatural freaks.

IV. *Disturbances of Circulation.*—Palpitation and functional derangements are common. The pulse is frequent and irregular; there is often violent dyspnœa. No valvular murmur or hypertrophy exist.

V. Latent disposition to disease is exceedingly likely to be roused and become evident at this time. This is particularly the case with gout. The lithic acid diathesis is very common in this country, though gout is rare. The nitrogenous matters are only carried to the stage of uric or lithic acid and there circulate in the blood, taking the form of calculi, and being deposited in the glands. All the conditions necessary to the uric acid diathesis are met with in the menopause. Such women are very likely to have gravel in the urine, thickenings about the joints, etc., etc. Other constitutional affections, such as cancer and phthisis, may also make their appearance now.

As regards diagnosis it is only necessary to note the age of the patient, the menstrual irregularities, and the absence of any other cause for her disease.

The prognosis is generally favorable if the proper medicinal, moral, and hygienic treatment be employed. Otherwise softening of the brain, a permanently congested liver, diseases of the heart, and often incurable constitutional affections are the inevitable consequences.

As regards treatment. The diet must be restricted, and all stimulating foods avoided, though the patient may feel weak and indisposed to exertion. Alcohol, organic foods, and fats are to be strictly forbidden. So, also, with butter, meat, and fried foods. What is eaten should be light and digestible. Moral suasion is of essential importance. Explain to the patient the change she is going through, and so gain her confi-

dence. Exercise, fresh air, sunlight, gymnastic pursuits, bathing, and horseback riding are the chief hygienic indications. If the patient be feeble, with a tendency to tuberculous diathesis, be careful how you put her on an exhausting treatment. Where the liver is congested occasional moderate doses of blue pills are of benefit—3–5 grains once every fourteen days. I have seen the most wonderful results obtained under this treatment, especially if there be an excess of lithic acid in the blood, as shown by the red brickdust sediment in the urine. Some patients cannot take blue pills without salivation, so never give more than two grains at a time, followed by a saline. If calomel is not borne, Epsom or Rochelle salts may be substituted. So some bitter waters may be drunk after breakfast. For the nervous symptoms the bromides are the best remedies. Assafœtida and valerian are also useful. I have had very excellent results from two-grain doses of the monobromide of camphor, taken every two hours until ten grains have been ingested. Dry cups, mustard plasters, and blisters are of value as local applications. The symptoms of circulatory disturbances are to be best combated by digitalis. If, however, there be marked plethora, with a heavy, driving pulse, aconite or veratrum viride may be employed. For the indigestion the diet should be carefully studied. Sometimes the alkalies and nervines are needed on account of the peculiur accompanying pains. The following formula is reliable:

℞. Acid. hydrocyan. dil..... gtt. ij.
Sodæ bicarb..... gr. v.
Tinct. valeriani..... fl ʒ ½
Zingiberis syrupi..... ʒ xl.
Aquæ..... fl. ʒ iij.

S. In water thrice daily.

Lithia, being a fixed alkali and good diuretic, is often employed with advantage. It has a tendency to the elimination of the urates from the blood. The benzoate, carbonate, or citrate of lithia are also employed. Where there is presumably a tendency to the development of some latent constitutional affection it should, if possible, be anticipated and aborted.

JAUNDICE WITH ITCH.

The attack came on early in July of 1876 with severe vomiting and purging, jaundice of the catarrhal type. There was complete interference, at an early stage of the attack, with the entrance of bile into the bowel. I could not at that time diagnose any enlargement of the liver. Dyspeptic symptoms have been very marked, and constipation prolonged. The urine is very dark. No flesh has been lost. Lately the brownish color of the stools intimates the passage of some bile through the duct. To-day percussion shows an enormous enlargement of the liver—it extends two inches below the margin of the ribs The enlargement seems to be uniform. The right lobe extends almost down to the umbilicus. Evidently the case is one of chronic congestion. Were it cancer of the liver the enlargement would not be uniform, the man's general health would have failed, there would be much local pain, and the obstruction of bile complete.

The icterus caused by the circulation of the bile acids in the skin is horrible. The man's life is one of almost ceaseless agony. When the itching is at its worst he bites and tears his flesh and rubs himself with sharp sticks and stones.

The only treatment which has given any relief has been the continuous use of small doses of nitrate of silver and Karlsbad waters. Soda-baths have been tried without success. Alcohol, fats, and much sugar must be avoided. The diet should consist of vegetables and a moderate amount of starchy foods.

Progress of Medical Science.

CHANGES OF THE PUPILS IN CHLOROFORM NARCOSIS.—In the surgical clinic in Göttingen during the past winter, the changes in the pupils during the administration of chloroform were carefully observed in 122 cases. Previous to and during the stage of excitement, the pupils were, in most of the cases, of the usual width; in a few cases, just before the stage of complete insensibility, they were quite wide and sensitive to light. During the stage of complete insensibility they were closely contracted in 120 of the cases, and were absolutely immovable in 119. An instantaneous dilatation of the pupils in this stage was found to be a threatening symptom of chloroform poisoning. This occurred in two of the cases, in one of which the trouble seemed to be located in the heart, and in the other in the lungs; in both, life was restored by pulling forward the jaw and resorting to artificial respiration.

The following practical lesson has been deduced from these observations: When, during the stage of tolerance the pupils begin to dilate slowly, it is a sign that the patient is recovering from the narcosis, and more chloroform must be given; when, on the other hand, the pupils become suddenly widely dilated, the administration of chloroform must be at once stopped, and further trouble guarded against.—*Centralblatt für Chirurgie*, June 23d.

ON INSOMNIA.—M. Willemin, of Vichy, has recently published a paper on insomnia, which terminates with the following conclusions:

1. Morphine is the most powerfully hypnotic alkaloid of opium; narceine and codeine are less active, but do not leave behind the malaise that morphine produces. These substances are indicated in the insomnia of pain; they are counterindicated when cerebral congestion exists.

2. Bromide of potassium, which is a much less powerful hypnotic, is indicated in insomnia with circulatory excitement, such as the nervous insomnia in which opiates often prove inefficacious. It is administered with success to children. It is counterindicated in cases of very marked anæmia.

3. Sulphate of quinine, like the bromide, seems to exert an action on the nervous elements, which is followed by diminution of the encephalic congestion; like these two drugs, chloroform, administered by the mouth, proves useful especially in nervous insomnia.

4. Hydrate of chloral is a pure hypnotic, and is more rapid in its action than the others. It is applicable in almost all forms of insomnia, except in certain dyspnoic and cardiac affections, and when great debility exists.

5. The insomnia of old people and of weak, anæmic persons, may sometimes be combated with success by tonic medication, wine, ether, bitters, and hydropathy.—*Lyon Médical*, June 17th.

A CASE OF ELONGATION OF THE RADIUS.—At a meeting of the *Société des Sciences Médicales* of Lyons, in March, M. Quioc presented a plaster-cast of an arm which had become elongated in consequence of an osteitis of the radius. The patient was a seamstress, 57 years of age, and the deformity was first noticed five years ago, previous to which time both arms had been perfectly alike. She had never received any injury of the arm. At first she had no pain, but after a time the arm began to pain her when sewing, and she was obliged in January last to enter a hospital. Ex-

amination then showed that the two ulnar bones were of equal length; the left radius, measured in a straight line, was four-fifths of an inch longer than the right, and it was moreover bent backwards in its lower half in the form of an arch, with the concavity looking forwards and inwards. The forearm was in a position of complete supination; the hand was slightly flexed, and in a position midway between pronation and supination. The left radius was about a twelfth of an inch thicker than the right. The bone could be easily mapped out with the fingers; the skin over it was normal, and there was no increase in the temperature. The elongated radius was not rugose, and its consistence was the same as that of the right radius. It was slightly tender on pressure, but the patient only complained of pain when she tried to work. There were no enlarged glands in the axilla or near the elbow. The other bones were healthy, and the general condition was good. The patient denied all history of syphilis. Iodide of potassium was administered for two months, but the only effect produced was a slight diminution in the pains, which was probably due, not to the drug, but to the cessation of work. M. Quioc regarded the case as one of chronic osteitis, due to excessive fatigue of the hand and forearm. The case is rare, both on account of the increase in length and the absence of softening.—*Lyon Médical*, June 24th.

Arsenic in the Treatment of Malignant Lymphoma.—In 1871, Prof. Billroth published the history of a well-marked case of multiple lymphoma, which was cured in a short space of time by the internal use of Fowler's solution. Since then he has repeatedly employed the same treatment with the most marked success. Extensive tumors in all parts of the body, complicated by masses of hyperplastic glands as large as a man's head in the thorax and abdomen, have, under the use of arsenic, disappeared entirely, or at least diminished so much in size that the patient was able to return to work. In some cases the treatment had to be continued a year. Prof. Billroth does not deny the value of operative measures in the early stages of the affection, when only a few superficial glands are affected, but even in such cases advises the use of arsenic also, in order to prevent the spread of the disease to other glands. In the later stages of the affection, when the deeply seated glands are involved, an operation is out of the question, and experience has proved that the arsenic treatment is the only one which offers a prospect of saving the life of the patient. Relapses frequently occur, but are speedily arrested by the same treatment.

The arsenic should be given internally, and by parenchymatous injection into the glands at the same time. Five drops of Fowler's solution, with an equal quantity of tincture of iron or of dialysed iron, are to be given morning and evening on a full stomach. Every second or third day the dose is to be increased by one drop, until symptoms of poisoning make their appearance; this usually does not occur until the patient is taking from 25 to 30 drops of Fowler's solution *pro die*. The dose should then be diminished by a drop every second day, but on no account should the arsenic be stopped immediately. Sometimes the symptoms of poisoning do not set in at all, even when 40 drops of the solution are given *pro die*. In Prof. Billroth's wards, the dose is never allowed to exceed this point. For the parenchymatous injections, pure Fowler's solution is to be used, and as a rule only a few drops should be injected in one spot. Two or three injections may be made every day, provided there be no local irritation. When the glands become inflamed the injections must be discontinued, and moist heat employed. In making the injections, care must be taken to prevent the escape of any of the solution into the subcutaneous areolar tissue, an accident which is betrayed by sudden and intense pain. The injections are sometimes followed by neuralgic pains, which are readily relieved by hot compresses to the painful glands.

Children are much more tolerant of the arsenic than adults. The treatment sometimes causes sleeplessness, restlessness, an excited state of the nervous system, a melancholic condition, etc., all of which disappear as soon as the dose is diminished. Fever is very generally, but not always, present; it may be remittent or intermittent. The latter, in Prof. Billroth's wards, was observed only in patients who were treated by parenchymatous injections, and always set in about an hour after the injection. During every attack of fever, the glandular tumors became noticeably smaller. The fever never occurs in cases in which no diminution in the size of the tumors takes place; in other words, the arsenic fever is simply a resorption fever. Where the arsenious acid has been injected into a gland, a small spot of necrosis is produced. The glands, however, do not show traces of suppuration or of caseous degeneration; hence it is probable that the arsenic in the circulation acts chemically on the lymphoid cells, which undergo such changes as to become capable of being reabsorbed. The destructive influence of the arsenic on the physiological tissues should be counteracted by good food and by alcohol; if the fever become too violent, the doses should be diminished.

The following are the most important conclusions drawn by Dr. Winiwarter, the author of the paper from which the above is taken:

1. The arsenic treatment is efficacious in cases of malignant lymphoma, and also of leukæmia, since it leads to the resorption of the hyperplastic glandular tissue.

2. The good effects of the arsenic are due to its power of inducing in the albuminous tissues, and above all others in the glandular tumors, a destructive process, which prepares them for resorption.

3. The local action of parenchymatous injections, and the arsenic fever assist in producing the diminution in the size of the tumors.—*Allgemeine Med. Cent.-Zeit.* May 16th, 19th, and 23d.

Case of Ossification of the Eyeball.—Dr. H. M. Jones, of Cork, recently enucleated an eye which was extensively ossified. On slitting up the sclerotic, this tunic with the cornea peeled off cleanly, the ossified mass turning out like a nut out of its shell. These tunics were somewhat thinned and the cornea was opaque, but otherwise they presented no morbid condition. The lens was adherent to the iris, and merely represented by a tough, gritty membrane of a white color. The pigmented layer of the choroid was much thinned, and was spread out over the bony mass; by careful manipulation it was completely stripped from the latter, being connected with it only by some minute withered vessels, which pierced the osseous structure. The bony globe was open in front, and contained a brownish serous fluid with masses of yellow, caseous material. The remains of the retina were attached to the inner surface of the osseous structure, which, when completely freed from the tissue, resembled in form the empty shell of the echinus. The optic nerve was separated from its retinal expansion no aperture for its passage existing in the bony case.—*Dublin Journal of Medical Science*, July.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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A PLACE IN WHICH MEDICAL CHARITY IS NOT ABUSED.

In another column will be found a short extract from the letter of a physician in Waterbury, Connecticut, concerning medical charity there. We are informed, in regard to remuneration for pay-patients, that "there are no losses whatever, and no free patients. If any poor patient wishes to apply for dispensary relief, he seeks a selectman," and obtains from him a permit. The town then pays the doctor for his services, and buys the medicine for the patient. It is difficult to understand how anything could be more simple and effective. We are not aware that there is any room for more medical practitioners in Waterbury, but if such should prove to be the case, vacancies can be very easily filled. All that the physician could wish for is a decent sick-rate to make business ordinarily brisk.

While we congratulate our medical friends in Waterbury, we beg them to consider the danger of innovation. It is impossible to say when some of their number may be seized with a desire to found a medical college, teach students, or write a book. When that time comes, clinical material must be had, and the use which can be made of it by the members of the Faculty will be far more valuable to them than any pecuniary return which the town may make for abstract services or necessary medicines In the course of events may come a demand for a large hospital, and the desire to fill it with patients, and then, if there be not enough positions in hospital and college to satisfy every practitioner, there will be trouble. But let us hope that this will be a long way off.

The admirable provision for the poor in the town named is worthy of the attention of every one really interested in suppressing the ordinary abuses of medical charity. Our correspondent, in his enthusiasm, wishes that some such plan could be adopted in New York City. There are many who share with him in that hope, but, alas! there are difficulties with which to contend in a large city which amount to nothing in a small town. In the latter, any system of inspection, however simple, can be made sufficiently effective to guard against any flagrant abuses, but in large and mixed populations this is almost impossible. There can be some approach to it, as seen in the efforts of the Association of Out-door Relief in this city, and also in the inspections of the St. John's Guild; but in spite of all the care, persons have been found who receive bread, tea, sugar, and fuel, and who exchange the same with small shopkeepers in their vicinity for intoxicating drinks. In fact, some of these shops do quite a business in that line. Still, this is no reason why we should not try to do all we can in the required direction. There may be more reason to hope for good in the efforts of the Dispensary Association to be formed in this city, and perhaps the Medical Provident Committee may have some extra suggestions to offer, but at all events the necessity for something being done at once is quite urgent. Those gentlemen who, by chance or necessity, have stayed in town during the warmer months, have reaped somewhat of a harvest, but when the colleges begin, when the dispensaries are thronged with students, and when the Out-door Department of the New York Hospital sends out a few more thousands of its circulars, inviting the suffering poor to dollar chances, when the surgeons of the hospitals are looking around for cases upon which they may operate, and upon which they may lecture; then will every practitioner in New York, who has not a hospital, dispensary, or college appointment, envy his brethren of Waterbury, and yearn to settle in their midst.

THE HEALTH DEPARTMENT.

An article in a recent issue of the *Times* calls attention to the extravagant management of the Health Department of this city, backing up the assertion with the fact that nearly the entire appropriation of over two hundred thousand dollars is used up in paying the salaries of the officials and their supernumeraries. Although we have never believed the Health Board has been as efficient as it might have been, still as a political machine it has done very well. Any other department under similar influences of patronage could not probably show any better record. But this is no good excuse for the army of political "hangers-on" for whom positions must be found. The true responsibility of this state of things rests with the commissioners themselves, who have it in their power to reduce the force of these supernumeraries, so that some margin may be left for the emergencies of extra work. The clerical force is altogether too large, and its work should be shared by some of the more prominent officials, who draw large salaries and do very little work. We have always contended that the Sanitary Inspectors are working-men who more

than earn their salaries. In fact, upon them the true efficiency of the Board depends, and yet their pay is very little more than that of an ordinary clerk, while it is exceeded by that of the chief clerks. The fault lies in the disposition to minister to the claims of political patronage in providing places for small politicians, rather than in overpaying those who do the real work of the Board. But how can this be helped when the President of the Board is confessedly a politician who is said to hold his place chiefly upon the representation of the President of the Board of Aldermen that he is a good Democrat, and has been known "to act with the Democratic party of this city?"

Correspondence.

CONCERNING IDIOSYNCRASIES AND PROFESSIONAL RESPONSIBILITY.

To the Editor of The Medical Record.

Sir:—After listening to the medical testimony in, and reading your editorial on, the case of Dr. Westlake, tried in Elizabeth, N. J., for malpractice, in causing the death of young Lewis, who died under the influence of chloroform administered for the extraction of a tooth, the question, "How far is the physician responsible for the effect of medicines prescribed or administered by him?" very naturally and forcibly suggests itself.

In this case, it was proven that Westlake administered chloroform in the way dentists usually do; that the quantity was not large; that the tooth was extracted while the patient was struggling; that the patient was partly conscious after the operation—at least, attempted to spit when told to do so; that immediately after this attempt he passed into an unconscious state, from which he did not revive, and the *post-mortem* showed Lewis to have been a healthy lad.

The prosecution failed to prove that Westlake was incompetent to administer chloroform, or extract teeth. They failed to prove that he was not sober at the time of the accident, and neglected to attempt to prove the only strong point in the case, viz., that he did not resort promptly to the proper method of restoring the suspended action of the heart and lungs.

In the cross-examination, the prosecution admitted that there is such a thing as idosyncrasy, and that sometimes remedies administered by the most skilful practitioners, with the best possible intentions, produce painful instead of remedial results, and that no physician, however learned or practised, can determine at the time of administration the effect of his most studied and carefully dispensed prescription. Illustrating this peculiar susceptibility of some systems to the influence of certain medicines, the effect of camphor may be mentioned.

This drug was given in the ordinary dose to a patient suffering with colic. Its depressing effects were so marked and serious that the attendants for a time thought the patient dead.

About twelve or fifteen years after, under similar circumstances, the same remedy was administered to the same patient, by the same physician, with results sufficiently distressing to have made me, though only a lad at the time, not only distrustful of even so simple a drug as camphor, but to gather here and there, as I could, cases where its peculiar effect has been marked and serious.

One of these cases I will here state. A boy, about sixteen years of age, was directed to procure some gum camphor, and with a package of this drug in his pocket, he returned to his home two miles in the country. While unharnessing his horse, he was taken in a fit. He was carried to his bed, and his clothing removed, when he at once revived. When asked if he had ever had a fit before, he said, "Yes," once before, when he took camphor.

Calomel, perhaps as certain in its action as any drug we possess, sometimes produces effects altogether at variance with our wishes. As an example: ten grains were given to a stout and ordinarily healthy lady, aged twenty, who seemed to have a mild remittent. It had no cathartic effect, and instead of the ordinary discharge of ptyalism, every attempt to eat or swallow brought on a profuse discharge of dark, watery, offensive blood from the gums.

In addition to this, there was a continuous uterine hemorrhage, in character much like that above described, which no remedies seemed to control.

This condition lasted about four weeks, indeed till her life was despaired of, and, judging from her looks, one might have supposed that the hemorrhage ceased only because there was no more blood to flow.

A few years ago, one of the most eminent surgeons in your city was called in consultation to see a lady, aged fifty, who had been in delicate health for a year or more, and whose abdomen had a hard, nodulated feel. After a careful examination, he concluded that the abnormal condition was due to an accumulation of hardened fæces, and he assured her that, to the best of his judgment, she would be entirely relieved in a few days. He directed two generous doses of blue-mass, followed by sal Rochelle. The effect of the cathartic was only limited by death, which occurred on the third day after taking it. The examination after death showed the abnormal condition to be a cancerous deposit in the omentum, and not hardened fæces in the bowels.

The prescription was directed after hearing a full history of the case, and after giving the patient a careful examination. The result shows that the cathartic hastened the final issue, and that it was exactly the medicine she should not have had.

In one of your late numbers, you give the report of a death from the "absolutely safe anæsthetic nitrous oxide." The unfortunate patient being a surgeon of considerable repute, most likely every precaution was taken to administer it carefully.

Now, the patients who had chloroform and nitrous oxide undoubtedly died from the effects of these anæsthetics. The cathartic was certainly the immediate cause of death in the one who took it, for her decline had scarcely been perceptible, and under a tonic treatment she had apparently improved, and seemed as well the day she had blue-mass as at any time in two months. The patients who had camphor and calomel suffered less from the effect of these drugs only in the result.

These cases are not offered as an excuse for the dentist, nor as a criticism on the administration of the other mentioned drugs, but to show that no medical man can count with certainty on the effects of his prescriptions, any more than the surgeon can explain how one patient receives a fatal shock from an operation or injury while another apparently receives no shock from a like misfortune. H. H. J.

Rahway, N. J., July 4, 1877.

ON THE GENERATION OF BACTERIA IN URINE.

By FRANCIS GERRY FAIRFIELD.

I DESIRE, as a medical student, to lay before the readers of THE MEDICAL RECORD the results of a series of experiments that have an important bearing upon the origin of bacteria and vibrios in diseased tissues. The inference, for example, is a fair one, that if an experimentist were to introduce through a catheter a small quantity of liquor potassa in the living bladder, and to detain it there for thirty-six hours, the result would be an abundant generation of bacteria in the urine thus detained—in other words, an artificially produced diphtheria of the bladder.

It is not my intention in what follows to venture upon any discussion of the varied experiments that have been instituted of late years, with a view to settle the still-contested issue whether, under favorable circumstances, minute organisms may be developed in vegetable or animal infusions without the presence of anteeedent germs. In England, Professors Huxley, Tyndall, and Bastian; in France, M. Pasteur and others; in Germany, Cohn, Hueckel, and Dollinger; in this country, Professors Wyman and Clarke, of Harvard College, and other eminent microscopists, have all contributed important memoirs to the literature of spontaneous generation, the third in order and the last two having taken decided ground in favor of obiogenesis, and the rest more or less decided ground against it. The latest aspect of the subject, and one that has revived the controversy in all its virulence, is presented by a series of experiments recently instituted by Dr. Bastian, in England, and repeated and verified by the eminent M. Pasteur. As my own experiments, conducted after Bastian and Pasteur, have been attended with surer results than they record—results that appear to me to settle the question at issue with an unanticipated certainty—I shall first detail them with all possible brevity consistent with sufficient exactness, and then indicate the conclusions to which they have inevitably forced me.

Tuesday, April 10th, at 12 o'clock, noon.—Having first carefully tested three bottles, each of the capacity of four ounces, with absolute alcohol, they were immersed for ten minutes in boiling water, 241° F. On removing No. 1 from the water it was instantly filled with urine transferred, without coming in contact with the external air, directly from the bladder of a healthy male, and liquor potassa at the temperature of 221° F. was added in a sufficient quantity for neutralizing the excretion. The bottle was then stoppered with a rubber stopper taken from the boiling water, the liquid overflowing as the stopper was pressed in, so that not a single bubble of air remained. It was next dipped to the shoulder in melted wax, and thus hermetically sealed. Finally a filter of cotton batting was drawn over the stoppered end and tied securely in its place, and the whole protected with a tightly fitting rubber cot descending to the shoulder. The operation took exactly four minutes and thirty-seven seconds.

On removing bottle No. 2 from the water it was instantly filled with urine at a temperature of 236½° by an accurately graduated medical thermometer, liquor potassa at 221½° being added for neutralizing, and stoppered in exactly the same manner, with the addition of cotton filter and rubber over-shield. No. 3 was filled under the same conditions with urine and potassa, and corked with an ordinary cork. Without any precautions whatever, two two-ounce test-tubes were then filled, the one with boiled, the other with untreated urine, sufficient potassa added to each, and placed open in the test-tube rack. The urine was all drawn from the same person, and the specimens were all placed on the mantel. The temperature in my room during the experimental thirty-six hours following varied from 73° to 77° F.

April 11th, at 11 o'clock P.M.—Having prepared five slides with cells constructed by removing from inch-square sections of tinfoil a central disk one-half an inch in diameter and then cementing the sections to the surface of the slides, I cleaned five inch-square covers. On test with dropping-tube the capacity of one of these cells was exactly one drop. The examinations were conduced with a $\frac{1}{10}$ inch objective, giving with C eyepiece, tube drawn, 1.250 diameters. Opening bottle No. 1, which was thoroughly shaken at the instant of unstoppering, I commenced my examinations at midnight, by transferring a single drop to one of the cells, covering it, and searching it field by field, with the stage of the microscope adjusted to an exact level. The drop was absolutely swarming with minute forms of life, among which the most numerous were cylinder-like bodies about $\frac{1}{7000}$ of an inch long, and $\frac{1}{8000}$ of an inch in diameter. A few specimens of the familiar bacterium termo, an occasional moniliform vibrio, and monads only less in number than the bacilli, presented themselves as field after field was gone over with. Counted ten fields in ten consecutive drops, and registered the result of each field. The total count for 100 fields was 591. No. 2 yielded under the same count 67 organisms to 100 fields. No. 3, as to which no special precautions were taken, 289 in all to 100 fields. Test-tube No 1 gave 227 to 100 fields; test-tube No 2, unboiled, 608 to 100 fields. Now, as the actual diameter of the field with C eyepiece, tube drawn, measured by Nobert's rulings, was almost exactly $\frac{1}{1000}$ of an inch, and as the cell was half an inch in diameter, the number of such fields contained within its area was $\frac{1,000 \times 1,000}{2 \times 2} = 250,000$; upon which basis the number of organisms to the ounce in each specimen may be readily calculated, counting, as is the case with our more delicate dropping-tubes, about 500 drops per ounce.

	Per drop.	Per ounce.
Bottle No. 1.....	1,477,500	737,750,000
Bottle No. 2.....	167,500	83,750,000
Bottle No. 3.....	722,500	361,250,000
Tube No. 1.....	567,500	283,750,000
Tube No. 2.....	1,520,000	760,000,000

Transferred one-eighth of an ounce from bottle No. 1 to a blue glass culture camera, and re-examined it at the expiration of twenty-four hours. The number of bacteria had considerably diminished, but the field was studded with large cellæform germs, with bacterium colonies densely packed together and apparently dead, and presented an extraordinary fungous development, which evidences that some of these low forms of life are animal only in their earlier stages.

Thursday, April 12th, 12 M.—Repeated the preceding experiments with specimens of healthy urine, all obtained from one person, not the same as in the first series.

Friday, 12 o'clock, midnight.—Commenced a series of examinations as before, and finished at 7 o'clock Saturday morning, with the following tabular result:

	Per drop.	Per ounce.
Fresh urine, unboiled.....	1,022,500	511,250,000
Urine boiled.....	130,000	65,000,000
Same, without precautions..	590,000	295,000,000
Open tube, boiled.....	527,000	263,500,000
Same, unboiled.....	1,817,500	908,750,000

Monday, April 16th, 12 M.—Prepared two bottles of urine from a patient in advanced stages of Bright's disease of the kidneys, in exactly the same manner as Nos. 1 and 2 in the first series of experiments. Result per 100 fields, at the expiration of thirty-six hours, 832 for fresh, and 244 for boiled urine—not so large an advance upon the results obtained from the healthy excretion as I had anticipated.

The extraordinary fact that appears in experiments conducted with urine consists in the almost inconceivable number of organisms developed, and in the tremendous rapidity of the process, which, on comparing the results from bottle No 1 with those from tube No. 2, are neither accelerated nor diminished materially by the exclusion or presence of free oxygen. Another curious fact is that in every instance the slight cloudiness denoting the appearance and progress of vital phenomena commenced at the bottom of the bottle or tube and slowly involved the upper strata of the liquid. Now, the specific gravity of liquor potassa is a little greater than that of urine. Consequently, upon its addition to the specimen, the formation of urate of potash crystals commences at the bottom of the vessel. In such case I added potassa until a few crystals appeared, and then, after stoppering, shook the specimen. The development of the cloud invariably commenced within thirteen hours after the addition of the potassa, and proceeded from below upwards until the liquid was slightly opaque and had a whitish lustre from top to bottom, the opacity predominating beneath. Now, taking into account the fact that the life-term of a bacterium must be reckoned at from twelve to fifteen hours, and that the transformation of bacteria into fungous developments is evident, at least as respects some of their varieties, it is not only practically, but absolutely impossible to explain the tremendous number of organisms in bottle No. 1, or even in No 2, by assuming that a few germs previously floating in the atmosphere may have passed through the rubber hood, the filter of cotton, the sealing of wax, and the rubber stopper, and infected the contents beneath. Assuming such germs to be the products of pre-existing bacteria, as every microscopist is aware, such organisms are too rarely met with to account for such a myriad development within thirty-six hours, even in an open vessel. If, as is certain as concerns some species of the bacterium—the bacterium termo, for example—such minute organisms are stages in the development of microscopic fungi, then their germs can be identified at a high power. Now, not with a view to a demonstration on this point, but in order to determine, if possible, the effect of dirty streets on the condition of the atmosphere, I had previously conducted and recorded a very simple series of experiments, by spreading drops of balsam upon slides and leaving them exposed to the air upon the mantel for forty-eight hours. In no instance, in the many experiments so conducted, have I ever found more than a dozen identifiable germs of any class to have settled upon a circle half an inch in diameter in forty-eight hours; so that, in whatever light one views the problem, the hypothesis of organizable matter introduced from without is inadmissible—more than that, absurd and impossible. The conclusion must be, then, that such organizable matter was present in the urine when it was withdrawn from the human body, and that, as a factor in their development, contact with the atmosphere was of no practical importance; and yet during a practice of years in medical microscopy, having studied more than 3,000 specimens of urine in conditions of health and disease, I have detected now and then, but very seldom on the whole, a few specimens of bacteria and possibly a few micrococci, such as are found occasionally in ulcers and abscesses. On one occasion, after permitting a mouse to putrefy under a bell-glass, I found abundant bacteria in sections of the putrescent brain, and abundant vibrios in sections of muscle. I doubt whether atmospheric germs were materially concerned even in this case. On the contrary, it is pretty clear from all the facts that these minute organisms are simple products of putrefaction, and nothing more than that. Moisture and temperature have a perceptible influence in hastening their development, but in other respects the external conditions are unimportant. How minute such germs must be, if such organisms spring from them, is evidenced by this fact: With $\frac{1}{16}$ inch objective, using a C eyepiece, giving, with tube drawn, 2,100 diameters, my eye could not fail to detect and appreciate an organic particle $\frac{1}{100000}$ of an inch in diameter, while the minutest micrococci I have ever observed, in specimens of the saliva of a rabid dog, are not less than $\frac{1}{20000}$ of an inch, and the spherules in active vaccine, animal germs most likely, are somewhat larger than that. Some vibrios—and probably all in their earlier stages—are simple strings of minute granules about $\frac{1}{30000}$ of an inch in diameter. Now, my own observations lead me to believe that these minute granules are spontaneous developments of decomposition, produced by a series of molecular changes in the decomposing tissue or infusion. It is possible—probable, even—that the decomposition of a tissue or an animal or vegetable infusion disengages millions of organic molecules which are capable, under favorable conditions, of producing such lower forms of life as monads, bacteria, and vibrios, and that our bodies are thus in themselves billions upon billions of possible minute organisms. In a word, the specimens of urine under experiment contained millions of organic molecules, to which the potassa supplied the essential condition for development into forms of life appreciable by the microscope.

On Monday, April 16th, examined the contents of an hermetically sealed culture cell, in which a couple of drops from specimen No. 1 had been growing since the date of opening the bottle. A few monads and bacteria were visible in the field by a one-eighth inch glass; but the greater part of the urea was occupied by a fungous growth, amid the meshes of which were scores of amœbæ in rapid motion. On searching the specimen more carefully I found three fully developed animalculæ of a species entirely unfamiliar to me, not moving by means of vibrating cilia, but by alternate expansion and contraction. This one experiment demonstrates nothing, I confess; but it suggests that monads and bacteria are but stages in a development of life that passes from them into a vegetable form, and finally terminates in the amœba and the higher animalcules.

May 27th.—Since the foregoing observations were prepared, a case has come under my notice which curiously illustrates one of the points at issue. Miss J. K., of this city, tolerably healthy in appearance; not at all exsanguinated; persistent pain in the frontal region; relish for food rather increased than impaired; considerable swelling of the joints. Has had severe attacks of dyspepsia, and is an invalid of several years' standing. Attended by Dr. Comstock, 83 Lexington Avenue; case recently diagnosed, Dr. Comstock tells me, by Dr. Flint, as one of Bright's disease of the kidneys. Specimen of morning urine examined May 22d, from six to seven hours after evacuation. Specific gravity normal; deficiency of uric acid and urea; sediment after heating abundant in mucous and epithelial débris. No casts; reaction

neutral. So extraordinary was the development of bacteria in this specimen, that, within the field of a one-fourth inch objective—field $\frac{1}{200}$ of an inch in diameter by micrometer measurement—they actually swarmed by the hundred. Counted six fields, with the result of 121, 132, 101, 147, 103, and 159. Dr. Comstock had previously diagnosed rheumatic arthritis—a diagnosis rather militated against by the conspicuous deficiency in uric acid and urea. Suspecting mesenteric disease, there being no history of syphilis, I suggested hyposulphite of soda in fifteen to twenty grain doses, twenty minutes before eating. Examined a second specimen this evening (May 27th). Same general description, with the exception that the bacteria are lying dead under the glass by hundreds, instead of being in active motion as before. Dr. Comstock reports that the patient is mending under the exhibition of the hyposulphite. The curious fact here is that there have been no symptoms of diphtheria of the bladder, as would naturally follow from the bacterial theory of diphtheria. As it happened, on the same evening, May 27th, an opportunity to examine some fresh sections of diphtherial membrane occurred in the case of a boy, five or six years old, brought in for examination. The membranous structure of the sections was well marked, and numerous fungous spores and cells, as well as filaments, were visible, but not a single bacterium appeared. Is it not possible that the bacteria noticed by foreign observers may have been accidental products, not concerned in the causation of the disease? I have met them sometimes in saliva taken from the mouths of rabid dogs immediately after death, but only twice in eleven examinations during the last four years, while a well-marked vegetation that I will take the liberty of styling the *Penicilium rabiei caninæ*, has been unfailingly present in great abundance.

MEDICAL CHARITY AND THE TOWN OF WATERBURY, CONN.

To the Editor of The Medical Record.

Sir:—This is the way in which they manage "these things" in the town of Waterbury, Conn., and I think you will admit that the following subjoined extract from the letter of a physician in Waterbury to a medical friend in this city is worthy of more than a passing thought:

"There are no losses, however, as *all* the bills are paid, and there are no free patients. The poor of the town are admirably provided for, and I wish some such plan could be adopted in New York City. When a patient wishes to avail himself of the Dispensary, he is obliged to apply to one of the 'Selectmen' for a recommendation. If the Selectman is not satisfied as to the applicant's poverty, the application is *refused*. When, however, the case is genuine, the Selectman gives the patient a ticket of admission to the Dispensary, and the *town* pays the doctor and buys the medicine; consequently, Waterbury neither manufactures paupers nor starves its doctors. . . . . The people seem not only grateful for what is done for them, but also anxious to settle their bills."

Respectfully, Viator.

Hydrophobia.—Hydrophobia is on the increase in London, and the dogs run around loose in the streets seeking whom they may bite. This condition of things is contrasted with the excellent regulations said to exist with reference to truant dogs in this city. But this is more a matter of imagination than reality.

New Instruments.

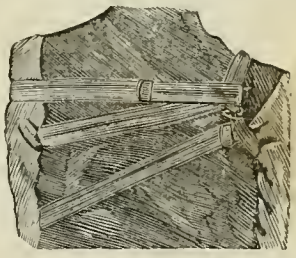
APPARATUS FOR TREATMENT OF FRACTURES AND DISLOCATIONS OF CLAVICLE.

By E. BARTLETT, M.D.,

Exeter, N. H.

Of the various means by which efforts have been made to fulfil the indications for treatment of fractures and dislocations of the clavicle, the attention of your readers is invited to the "Ring and Sling" as now improved, and, it is believed, perfected since its inception over twenty years ago. Then it was announced as Dr. Bartlett's modified apparatus of Dr. Fox, and

was noticed by Prof. Hamilton in his work "On Fractures and Dislocations," though unfortunately the directions for its application referred to the *old* sling, while the woodcut represented the *new*.



The new sling is applied to the elbow only, and, by its guy-straps, buckled into the side-buckles of the ring, controls, most effectually, the desired position of the humerus, making it the medium through which the shoulder is carried upward, outward, and backward, without the interposition of an axillar fulcrum.

The ring is made in two hair-stuffed parts buckled together, and may be enlarged if required. It is applied to the shoulder of the sound side by sliding it up the arm, placing in the axilla that half to which the side-buckles are fastened, and having them look toward the median line. This position of the ring is important, and should be strictly observed. After placing the arm in front of the chest, so far as to have the hand rest easily in the strap at the ring, apply the sling to the elbow, and buckle the forward guy-strap to the ring, short enough to retain the arm in that position; then carry the other guy-strap across the back to the other side-buckle on the ring, drawing it sufficiently tight to reduce the fracture, which is indicated by the removal of the deformity.

This completes the indispensable dressing for *fracture* of the clavicle, but for greater security and firmness during the sleep of the patient, and especially in dislocations of the clavicle, the long strap should be applied by passing one end through the axilla of the

affected side, the other through the ring, and buckling them together across the scapulæ, as represented in the engraving.

For additional security to the elbow, a short strap is passed beneath the angles of the sling and buckled over the bend of the arm, loosely, so as not to stop the circulation.

In a case of dislocation of the scapular extremity of the clavicle it will be necessary, in order to keep the same in place, to put a sufficiently large and firm roll of bandage, as a compress, in the hollow above the middle of the clavicle, confining it by a strip of bandage fastened to the front and back guy-straps of the sling, by pins, or needle and thread. This is better than the former method of placing the compress over the articulation and confining it by turns of a roller under the elbow.

Two cases of this dislocation have occurred in the practice of the writer, in both of which this treatment was successful. Three cases, one of dislocation of the sternal extremity, and two of the scapular end, were reported by Dr. Folts, of Boston, in which he used this apparatus with success. Of it he said: "I consider it the most perfect, for the treatment of all injuries the clavicle is liable to sustain, of anything with which I am acquainted."

In fracture of the neck of the scapula, and of its acromion process, it should be used with an axillar cushion; the elbow, in such case, not being brought forward and inward, but confined perpendicularly to the side by buckling the guy-straps of the sling accordingly.

There is, probably, no method which fulfils so many indications as this; doing it, too, with such precision, such ease and success, that a failure to treat all cases without deformity and disability should be regarded as malpractice.

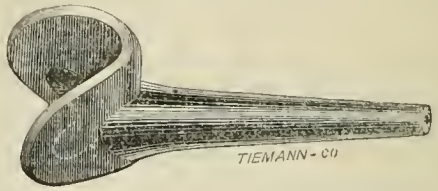
The apparatus is manufactured by W. F. Ford, Surg. Dept., Caswell, Hazard & Co., New York.

A NEW INSTRUMENT FOR THE ADMINISTRATION OF THE AIR-DOUCHE TO THE MIDDLE EAR.

By SAMUEL SEXTON, M.D.,

NEW YORK.

The appliance used by Dr. Politzer to connect his air-bag to the nose in administering the air-douche to a patient, consisted of a slightly curved hard rubber tube, which was inserted into the meatus to the distance of about one inch, when the patient's nose was seized with the thumb and forefinger and pressed until air-tight. This frequently caused wounding of the nasal passage, and was especially obnoxious to children. An improvement to this was made. Some American aural surgeon, whose name is unknown to me, suggested the use of a glass or hard rubber nose-piece, made oval in form, and partly entering the meatus, which answered the purpose very well. Its use, however, was attended with one difficulty, namely, it permitted the air to escape through the imperfectly closed nasal passages at times. Principally to remedy this last-named difficulty, Mr. Allen, of London, devised a "nasal pad," intended to be applied to both sides of the septum nares at the same time. With a view to further improve these appliances, I have had the Messrs Tiemann & Co., 67 Chatham Street, construct a soft rubber instrument, which I have now used for several years, and find very useful. The accompanying cut renders a description unnecessary. Being constructed of soft rubber, it can be applied to an infant without giving pain or alarm. It should be borne in mind, when using, that the in-



strument should be *pressed up against* the nasal openings, using care not to *close* the alæ nasi by lateral pressure, as the object is to keep the passages *dilated* as the air passes in. It can be applied to all sizes and shapes of the nasal organ, and no air is lost in passing from the air-bag, to which it is attached, to the naso-pharynx.

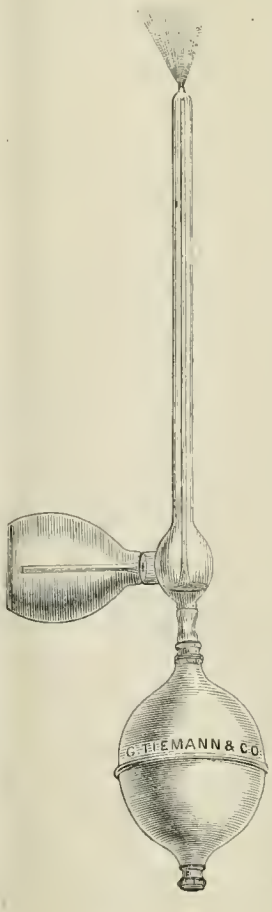
Its cleanliness is manifest, as it does not *enter* the nasal cavity, but is *pressed against* it, and having but one opening, which is large, it is easily cleaned.

A NEW ATOMIZER.

By F. A. BURRALL, M.D.,

NEW YORK.

The atomizer represented in the accompanying sketch is exceedingly well adapted to the use of both practitioner and patient when a moderate amount of fluid is required. It consists of a rubber ball with valve attached to a glass atomizer of the form known as Newman's, which is modified by being connected with a small reservoir for holding the liquid. Atomizers have so many uses that a household is hardly complete without one. In coryza, dryness of the nares, sore-throat, and allied disorders, also for disinfection, these little instruments are very useful. They are also serviceable as aids to office treatment of nasal or throat diseases, since they can be used in the interval. An objection to metallic atomizers arises from their liability to become corroded, and although glass ones are more fragile, a little care will usually obviate this danger, and they are more easily cleansed.



I will not dwell upon the advantages of medicated spray in treatment, since they are generally admitted, but merely call the attention of physicians to this agent for vaporizing fluids. The instrument is manufactured by Tiemann & Co.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 12 to August 18, 1877.

DICKSON, J. M., Captain and Asst. Surgeon. Relieved from duty in Dept. of the Gulf, and, on expiration of his present leave of absence, to report in person to the Comd'g General Division of the Atlantic for assignment. S. O. 172, A. G. O., Aug. 14, 1877.

BROWN, P. R., 1st Lieut. and Asst. Surgeon. To be relieved from duty with 5th Infy. upon arrival of A. A. Surgeon Redd, at Tongue River, and return to his station at Fort Shaw. S. O. 108, Dept. of Dakota, April 13, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending August 18, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Aug. 11	0	13	48	3	28	18	0
Aug. 18	1	25	42	2	13	17	0

THE LATE PROF. A. B. CROSBY.—At a meeting of the Faculty of the Bellevue Hospital Medical College, held Aug. 10, 1877, on motion it was unanimously

Resolved, That this Faculty humbly bow in submission, but with saddened hearts, to the Almighty, who in His inscrutable providence, has suddenly stricken down in the meridian of his career one of its most gifted and beloved members, ALPHEUS B. CROSBY.

Resolved, That in this visitation it has lost one of its most cultured, lucid, impressive, and brilliant lecturers; one who, in imparting his valuable lessons, made study a pleasure by combining with his wealth of learning an aptitude of illustration, mingled with wit and humor, that crowded his class-room with enthusiastic and admiring scholars.

Resolved, That the members of the Faculty mourn the loss of one of their most accomplished and genial colleagues, one whose presence at their official and social reunions was always hailed with delight.

Resolved, That in his death we feel that Bellevue Hospital has been bereaved of one of its most skilled and faithful surgeons, the medical profession of one of its most eminent practitioners, the country of one of its noblest citizens, who, both in war and in peace, contributed his talents and energies with patriotic zeal in its behalf.

Resolved, That we offer our sincere sympathy to his wife and family in this trying ordeal; that while we are powerless to assuage their grief, we commend them to the sweet memories of his useful life, and to the tender mercies of Him in whom he trusted, who "has gone before."

ISAAC E. TAYLOR, M.D. *President.*
A. FLINT, JR., M.D., *Secretary.*

The following are the resolutions of the Medical Department of Dartmouth College:

Whereas, A sudden and afflictive dispensation of Providence has removed from us Dr. A. B. CROSBY, of our Faculty of Instruction;

Resolved, That we desire to express our sincere sorrow, and our sense of personal loss, the loss of an instructor gifted, learned, and apt to teach, and of a friend and counsellor, genial, wise, and faithful.

Resolved, That we offer our heartfelt sympathy to the bereaved family and friends, with the earnest wish that in their memories of his noble life, in their confidence in his blessed immortality, in their faith in the God in whom he trusted, they may find comfort in this bitter hour.

WILLIAM T. SMITH.
THOMAS AMORY DEBLOIS, } *Committee.*
GEORGE F. ADAMS,

HANOVER, N. H., Aug. 10, 1877.

CREMATION.—It is said that Dr. Winslow, whose body was recently cremated at Salt Lake City, Utah, resolved to adopt that method of disposing of his remains after viewing the partially decomposed body of his child during a visit to the family vault. He at least saved himself a similar mortification in the eyes of his friends.

CONTAGIOUSNESS OF SCARLET FEVER.—Dr. Longhurst (*Lancet*), in answer to some questions regarding the contagious character and communicability of scarlet fever, writes that the period in which the infection is most active is the stage of inflammatory fever up to the full development of the eruption; that the intensity subsides with the subsidence of the fever; and that it is not during the stage of desquamation. That the media of communication are the vaporous exhalations from the skin and the breath affecting the surrounding atmosphere and the clothes. That the patient may ordinarily safely rejoin the family circle at the end of the third week.

WHOOPING-COUGH.—English practitioners speak highly of the use of croton chloral in the treatment of whooping-cough. They claim that it has a marked tendency to shorten the duration of the disease. The dose for a child one year old is one grain every three or four hours.

THE BITE OF THE "COPPERHEAD" SNAKE.—Dr. Thos. A. Elder, of Mifflintown, Pa., reports (*Phila. Med. and Surg. Rep.*) the cure of a patient bitten by a "copperhead," in which case the gravest symptoms of systemic poisoning showed themselves. His treatment consisted in the hypodermic injection of fifteen minims of spirits ammonia aromat., diluted with an equal quantity of water, into the foot in the neighborhood of the bite, and the internal administration of half a teaspoonful to a teaspoonful of the aromatic spirits every hour until the urgent symptoms were passed. This was the fourth case of the kind similarly treated. In one six hypodermic injections were employed.

SECRET DRINKING.—A strong and determined effort is being made by the medical profession in England to break up the practice of the retailing of liquors by grocers.

CANAL BOATS, AIR CAPACITY OF.—A bill is before the English Parliament, providing that "three children and their parents may dwell in a boat where the gross cubic contents of the cabin are at least 200 feet, such children being of an age not exceeding six years."

HÔTEL DIEU.—The inauguration of the new Hôtel Dieu is to take place Sept. 1st.

Trephining the Tympanum.—Dr. Bonnafont, of Paris, has trephined the tympanum with success for deafness, and ranks the operation in importance with that of removal of the cataract in eye-surgery.

Dr. Frederic S. Dennis, of this city, has passed the required examination of the Royal College of Surgeons of London.

Suits for Fees.—The Fellows of the Royal College of Physicians of London never sue their patients for medical services. We presume that the reason is that it is undignified so to do.

Puerperal Mortality in New York.—The *Lancet* asserts that puerperal mortality in New York is nearly twice as great as in London.

Left Side Deafness is said by Dr. Cassells, of Edinburgh, to be more frequent than deafness on right side, on account of the comparative smallness of the left nostril.

Falling out of Hair.—Prof. Erasmus Wilson, in cases of defluvium capillorum, prescribes a lotion composed of strong liquor ammonia, almond oil, and chloroform, of each one part diluted with five parts of spirits of wine or spirits of rosemary, and made pleasant as to fragrancy by the addition of a drachm of the essential oil of lemons. This should be dabbed upon the scalp after thorough friction with the hair-brush. No doubt there are cases in which this lotion must be used with caution, or largely diluted. In cases of alopecia he recommends frictions with a liniment composed of equal parts of the liniments of camphor, ammonia, chloroform, and aconite, to be well rubbed into the bare places daily.

Diphtheria.—Lowell, Mass., lost 231 children from diphtheria in 1876, this having been the most fatal epidemic in its history.

Inventor of Laryngoscope.—Señor Garcia was recently presented with a service of plate in recognition of his merits as the inventor of the laryngoscope.

Population of Sweden.—In 1800 the population of Sweden numbered 2,347,308 persons of both sexes; in the beginning of 1876, it had increased to 4,383,291. The population of Norway in 1800 was 883,038, and at the end of 1875 had increased to 1,817,237, an increase of 105.8 per cent.

Sale *vs.* the Louisville Medical College.—Our readers who have noticed a report of this suit some months since will be interested in the following account, as published over Dr. E. S. Gaillard's signature in the *Richmond and Louisville Medical Journal*:

"In September last, Mr. Sale, a medical student and the plaintiff in this suit, entered the college mentioned. He paid his fees. A few weeks subsequently he was offered (with others) free tuition in a Louisville medical institution. This offer was a part of the sworn testimony of the plaintiff. He accepted it and requested a return of his money. This request was of course not granted. He then asked for his tickets. He was told that this college never gave its tickets (the evidence of attendance upon a course of lectures) until the last month of the course. Had the tickets been given there would have been no suit, but they were withheld, and the suit invited. The plea in this suit was failure to comply with promises made. In the garbled version of the magistrate's decision published in the *Courier-Journal*, and sent to the medical press everywhere, and to the alumni of the Louisville Medical College, it is admitted that this plea could not be, and had not been, sustained by the evidence. The so-called 'judgment' of the magistrate was given on the ground that the present Faculty were not legally elected.

"The Book of Minutes of the Proceedings of the Board of Trustees shows that the members of the Faculty were not only legally elected by the present Board, but that one of the last acts of the old Board was to elect them (with one exception) before adjournment. It may be asked, why was not this book produced and such a 'judgment' prevented? The answer is simple: it was in possession of the persecuted Secretary of the Board of Trustees, Dr. B. M. Wible, who was ill and soon after died, and was found after his death, and after the so called 'judgment' had been rendered, and copies of it forced into a daily paper (which never publishes the petty business of a magistrate's court), and actively disseminated for purposes too evident to require indication."

A Medical Curiosity.—In February of this year, Dr. Maske, of Görlitz, Germany, was called on to remove an iron nut from the penis of a peasant boy, who was nearly fourteen years of age. In the search after forbidden fruit, the boy had drawn the nut over his penis, but was unable to get it off. He had to walk a league and a half to the doctor's office, and on his arrival the penis was found to be in a semi-erected state, swollen, œdematous, and very red. The nut, which was about two-fifths of an inch in thickness, was situated about four-fifths of an inch from the pubes. As it was absolutely impossible to remove it by the way in which it was put on, a neighboring file-maker was called in, and after over an hour's work the upper part of the ring was filed through. It was then laid on a small anvil, the scrotum being carefully protected, and a blunted chisel was introduced into the opening made by the files, and by a few light strokes of a hammer the nut was sprung open to a slight extent. Dr. Maske then succeeded, by compressing the part of the penis which was situated behind the nut, in forcing it through the opening he had made. The penis soon regained its normal condition.

Vaccination Parties in America.—A Parisian contemporary soberly publishes an extract from *Le Télégraphe*, in which it is stated that it is at present the custom at soirées in Yankeeland, to offer the guests varied assortments of vaccine in lieu of cakes and other refreshments. "The domestics of other days are replaced by doctors, lancet in hand. Eight incisions are considered the correct thing, and both human and animal vaccine are used at the same time, some taking five points of animal vaccine and three of human, others four of each, and so on according to the fancy of the vaccinated. There are also soirées, at which the vaccinated meet to compare their arms and ascertain the success of the operation. It is not an uncommon thing for an American lady of the present day to express her preference for a certain gentleman in these terms: 'What would you have? We have been vaccinated together.'"

We have no doubt that this will prove news to most of our readers.

The Charity Hospital in Berlin.—During the last official year, 15,294 patients were treated, and 395 children were born in the Charity Hospital in Berlin. Of these patients 1649 died, 10,453 were discharged cured, 1255 were discharged improved, and 645 were discharged unimproved. Each patient cost on an average 55 cents per diem.

Original Lectures.

GRAVES'S DISEASE.

A CLINICAL LECTURE DELIVERED AT THE UNIVERSITY HOSPITAL,

By WM. PEPPER, M.D.,

PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA.

(Reported by Samuel M. Miller, M.D.)

Five cases of this interesting affection present themselves at the clinic to-day, and thus a good opportunity is afforded of illustrating many of its peculiarities. We give this name to a group of symptoms, of which enlargement of the thyroid gland, protrusion of the eyeballs, and disturbance of the heart's action are the chief. It is not merely the thyroid enlargement which constitutes the disease, for you know that in many parts of the world goitre, even of extreme degree, is very common, and yet such cases are not to be regarded as in any way identical with Graves's disease. It will be found, in simple goitre, that the enlargement is progressive, and consists of a simple hypertrophy of the gland, unattended with either pulsation or thrill, and that there is an absence of exophthalmos and of cardiac disturbance. Moreover, the causes which lead to simple goitre are often endemic, as in the valleys of Switzerland, although the affection also occurs in a sporadic form; but in such cases the peculiar influences which favor the development of Graves's disease are wanting. We can better appreciate these and other points upon a study of the present cases:

Case I.—Mrs. J. L., 56, married, born in Germany. Has had twelve children, the youngest of them being at present 14 years old. Most of her labors have been difficult, particularly the last. She was much affected by the loss of her husband a few years ago, who died from the effect of gunshot wounds received during the war. She has suffered from frequent leucorrhœa, pain in her back, and other evidences of uterine disease. She has had rheumatism occasionally. Her menopause occurred two years ago, when she was fifty-four. Since that time she has noticed palpitation, choking sensations, blurred vision, and exophthalmos. She is of a very nervous temperament, and very easily frightened. She is dizzy every now and then. Blowing, anæmic murmur in pulmonary artery. Pulse 140. No valvular murmur. Thyroid gland enlarged, with pulsation and slight thrill.

Case II.—W. J., son of the above patient, æt. 17; born in Philadelphia. Had several attacks of rheumatism last February. Marked prominence of eyeballs since middle of April. Pulse 108. No cardiac murmur. Occasional giddiness and dyspnœa. Thyroid gland enlarged, but this varies in degree at different times. No thyroid pulsation noticed. Patient has poor appetite, and is anæmic.

Case III.—Mrs. McN., Irish, æt. 25. Had her only child four years ago. The labor was an easy one, and no complications ensued. Two weeks later her thyroid gland began to swell, and soon reached a very large size. She was also attacked with severe palpitation of the heart. There was also moderate protrusion of the eyeballs. After sixteen injections of ergotina at intervals of a week, the thyroid gland has returned to its usual size. The patient is very nervous, and the action of the heart, though controlled by digitalis, is easily disturbed, and becomes very rapid.

Case IV.—Wm. S., æt. 17, born in Bucks County, Pennsylvania. Had a severe attack of typhoid pneumonia at about the age of fourteen. Six months later he narrowly escaped drowning, and received a severe nervous shock. Last summer he had a mild sunstroke. After his escape from drowning he became very nervous and easily agitated. In six months palpitation of the heart appeared, and then marked enlargement of the thyroid gland. He has suffered frequently from sudden attacks of giddiness, or of marked flushing of the face. There is still decided enlargement of the thyroid, with thrill and pulsation. Heart's action much disturbed, but no valvular murmur; slight exophthalmos.

Case V.—John M., æt. 15, born in Philadelphia. A badly developed boy, with a rachitic chest. Palpitation of the heart appeared six years ago, without apparent cause; a year later the thyroid gland began to swell. No exophthalmos. The thyroid is now enormously swollen, the right lobe being a little larger than the left. There is a strong thrill felt over the gland. There is no organic disease of the heart. Pulse varies from 86 to 110, with, at times, spells of palpitation and dyspnœa. Occasionally he experienced difficulty in swallowing.

Graves's disease most frequently occurs in persons of a decidedly pronounced nervous temperament, and hence it is by far most common in females. It is met with, however, in both sexes, and, as the above cases show, at almost any period of life. I have seen a typical case in a man of over sixty years of age. Though certainly very rare in boys, I am able to-day to show you three such cases. There have only been two others during the past eight years at the University clinic. The causes which produce this disease are excessive care, anxiety, overwork, particularly if combined with deficient or improper food. In some cases, as in Case IV., it would certainly seem that the disease was induced by pregnancy or confinement, and in not a few cases, in females, the predisposing cause seems to be severe uterine disease or menstrual disorders. I have spoken of the three principal symptoms, but a glance at the cases will show that these symptoms are present in different degrees in different cases. For instance, the enlargement of the thyroid gland may be moderate or even slight; or, on the other hand, it may be truly enormous. In these latter cases there may be occasional sensations of strangling or of great difficulty in swallowing, from the pressure of the enlarged gland upon the trachea or œsophagus. It usually happens that the enlargement varies from time to time. As a rule, both lobes are equally affected, though one may be somewhat larger than the other. The thyroid gland is highly vascular, and the arteries leading to it are very tortuous. When, then, there is violent arterial over-action we would be prepared to find pulsation and thrill over the gland. These phenomena are frequently present in Graves's disease; in some cases they are present at times only, while in other cases they may be absent throughout. The characters of the thyroid enlargement point strongly to the view that it is due to a dilated and enlarged condition of the vessels with some hypertrophy of the glandular and fibrous tissue, and possibly with a varying degree of interstitial serous effusion. In connection with this we must note that there is frequently violent throbbing of the carotids and of their branches.

The exophthalmos is no less varying in its intensity; in some cases it is so slight as to attract but little attention; while in others it is so extreme that the globes cannot be covered by the lids, and it becomes necessary to protect them from injury by exposure to air

and dust. The protrusion seems to be due to the distention of the vessels of the post-ocular tissues, with serous infiltration, and perhaps some hypertrophy of the cellulo-fatty tissues behind the globe.

The disturbance of the heart is the most constant, and is frequently the earliest of the symptoms. It also varies much in degree. There is rarely any organic disease at first, though after excessive palpitation has long existed, excessive hypertrophy may supervene. The action of the heart is rapid—90 to 130 per minute—and is also liable to paroxysms of irregular palpitation, sometimes from very slight causes. Owing to the anæmia which usually coexists, it is not unusual to find marked anæmic murmurs at the base of the heart, along the course of the pulmonary artery, and over the jugular veins in the neck.

In considering the three symptoms above mentioned, and in looking for a common cause which might explain their development, it cannot fail to suggest itself that such a cause would be found in a morbid condition, with enfeebled activity of the cervical ganglia of the sympathetic and of the cardiac plexus of nerves. In consequence of this, irregular overaction of the heart and dilatation of the vessels of the neck and head would result—conditions which we have seen to be present in Graves's disease. This, then, may be regarded as the probable pathology of this affection. In a few cases actual lesions of the nervous ganglia have been found; but I do not think it at all necessary that any serious demonstrable structural changes should exist, at least not in the early stages. A state of great depression of their functional activity would explain all the symptoms, and the frequency with which complete cure results would seem to indicate that this is often the only condition present.

We have seen that there are frequently associated instances which are of precisely the character to develop such a morbid state of the vaso-motor nerves. Anæmia, nervous shock, or exhaustion—systemic exhaustion from severe attacks of illness or from pregnancy—may be again mentioned. So, too, there are a few special symptoms occasionally present which are all readily explainable in the same manner. Among these may be mentioned sudden flushing of the face, with violent throbbing of vessels and sensations of fulness or vertigo; local sweatings about the head, which sometimes are unilateral; local modifications in nutrition, such as irregularities in the growth of hair.

The diagnosis of Graves's disease can present but little difficulty if attention be paid to the characteristic features above indicated. It is really a very curable affection in many instances, provided it come under treatment at an early stage, and the hygienic conditions can be rendered favorable. Even when cure cannot be effected, the troublesome symptoms can be held in check. In advanced cases, or when the cause persists, the symptoms grow more grave. Anæmia becomes intense, dilatation of the heart, with degeneration of its muscular fibre, ensues, circulation fails, dropsy supervenes, and death follows from exhaustion and general anasarca.

In the treatment the greatest care must be given to the removal of the causes, and in securing rest, good food, change of scene, and entire release from cares. The various functions must be carefully attended to, and any local disorder in females removed by suitable treatment.

The remedies upon which I rely with most confidence are digitalis, iron, ergot, and bromide of potassium. These are required to meet the different indications, and will, therefore, be called for in different proportions in different cases. Digitalis is the most valuable remedy for controlling the functional disturbance of the heart. It may be given freely (gtt. x. to xv., three or four times a day), and continued for long periods at a time. Iron is absolutely essential when anæmia exists, as is so frequently the case; and when this condition is marked large doses of iron should be administered, in whatever form is most acceptable to the system. Ergot has proved of much value in my experience. Not only is it given internally, with a view of influencing the contractility of the walls of the arteries, but we have obtained most excellent results from the injection of diluted ergotina into the substance of the enlarged thyroid glands. The needle may be introduced to the depth of half an inch or an inch, and from six to ten minims of a solution containing ninety-six grains of ergotina to the fl. ʒ i. of distilled water injected. In Case III. it will be seen that after sixteen such injections, repeated at intervals of about a week, complete reduction of the enlarged gland was effected. In other cases we have obtained equally favorable results. Bromide of potassium is frequently called for, partly on account of the general nervous condition, but chiefly to assist the digitalis or ergot in controlling the irregular action of the heart and arteries. We may employ such of these remedies as seem specially indicated in any given case, varying the combination or mode of administration according to the progress of the symptoms. In order to secure success, however, persistent and careful hygienic and medicinal measures will be necessary.

Original Communications.

FRACTURE OF THE BONES OF THE FACE,

WITH INJURY TO THE EYE AND OBLITERATION OF THE NASAL DUCT.

By CHARLES S. BULL, M.D.,

SURGEON TO THE NEW YORK EYE INFIRMARY AND TO CHARITY HOSPITAL.

Fractures of the upper jaw are by no means so common as those of the lower jaw, but the results are much more serious. Direct blows on the bone are the most frequent cause, and there is almost always some displacement. Still, a blow in the face from before backward, may cause a transverse fracture of the superior maxilla below the malar bone, which is prolonged to the pterygoid apophyses, fracturing them on a level with the bottom of the pterygo-maxillar fossa, without any displacement. Violent blows below the orbits fracture not only the maxillary bones, but also the vertical plate of the palate bone and the pterygoid process of the sphenoid, and yet with very little resulting displacement. Furthermore, when the nasal process of the superior maxillary bone is broken, and the nasal bones driven in, emphysema of the subcutaneous tissue of the face is produced, and as another complication, permanent obstruction of the nasal duct. Another point to be remembered is, that injury to the infraorbital nerve and its branches is frequent, which may cause entire loss of sensation over the parts supplied by this nerve, or in rare cases a hyperæsthesia of the nerve and its branches.

Since the nasal ducts lie so deeply hidden within bony walls, slight external injuries to the facial bones can produce but little effect upon them. But occa-

ionally we meet with cases of violent injury, where he effect has been a driving or crushing in of the nasal or superior maxillary bones, or both, and these severe injuries may involve the calibre of the nasal duct. One cause for a stricture resulting in such cases s a naturally narrow base to the nose, where the nasal processes of the superior maxillary bones are pressed inwards and thus diminish the transverse diameter of the duct. Moreover, it is well known hat fractures of the nasal bones, by thus narrowing he sac and duct, may give rise to dacryocystitis and hus to stricture. An obliteration may result from contact between two lacerated surfaces after some such injury.

The following three cases illustrate very clearly the esults of severe injury to the facial bones, in a more or less complete obliteration of the nasal duct:

Case I.—Farmer, æt. 45; first seen April 21, 1875. Two years before, he had received a violent kick upon he left side of the face and temple from a vicious horse, which threw him to some distance, and rendered him unconscious for several hours. There was great laceration of the face, profuse hemorrhage, and long-continued suppuration. Pieces of bone came away at varying intervals for nearly eighteen months after the accident. The sight of the left eye was lost completely, and ever since the overflow of tears and pus from the eye has been constant. When I first saw him the deformity was very marked. The malar bone had been driven outward and backward, and was partly absorbed by necrosis, the orbital plate and nasal process of superior maxillary fractured, the external angle of frontal bone comminuted, the nasal bones driven downward and crushed in, and the whole orbit displaced downwards and outwards, so that the inferior orbital margin was three-fourths of an inch lower than the opposite side. The eye was atrophied, sightless, the result of rupture and subsequent iridochoroiditis, and was turned outwards and almost immovable. There was some ectropium of the lower lid, and pus could be squeezed out from the lachrymal sac through the lower punctum. The direction of the blow had evidently been from above downwards and outwards. There was a marked depression on the side of the nose, covered by a broad cicatrix, through which the man said the pieces of bone had made their appearance. The bridge of the nose did not exist, but in its place was a depression, showing how the nasal bones had been crushed in and flattened. The left nostril was closed and would not admit of the passage of the smallest-sized Eustachian catheter. After some difficulty I succeeded in passing a small catgut bougie through the nostril into the pharynx. The lower canaliculus was then slit up, and an attempt made to pass a Stilling's knife into the nasal duct, but it was immediately arrested at the junction of the sac with the duct, and no amount of force could cause it to advance. I then tried small silver probes, but with no better success. The duct was completely obstructed by what seemed an unyielding bony wall, and the immediate effect of the injury had, no doubt, been increased by the subsequent necrosis of the bone or bones, and the subsequent further sinking in of the bony walls. All attempts to re-establish the duct were abandoned. The stump of the eye was enucleated and the lachrymal sac was destroyed by cauterizing with nitric acid. This was done from the interior by the method practised by Dr. Agnew. The upper canaliculus was slit up, the whole anterior or external wall of the sac divided, the lips of the incision held apart by retractors, and the cavity of the sac carefully washed out with water. Then a small cotton swab, soaked in nitric acid, was carefully applied to the inner surface throughout its whole extent; the retractors were withdrawn and cold applications made. The slough came away on the fourth day, and the subsequent contraction and closure of the cavity went on rapidly. The contraction of the cicatrix, together with the natural sinking-in of the lids after enucleation, also caused a disappearance of the slight ectropion of the lower lid.

Case II.—Laborer, æt. 40; first seen in August, 1875. Two years before, while helping to pile up a number of barrels of lime, one of the barrels rolled off the pile, fell about five feet and struck him directly on the face, knocking him down. He lost a great deal of blood, and when taken to the hospital, both nasal bones and the left superior maxillary bone were found fractured. The nasal bones and the nasal process of the maxillary were crushed in, and the latter comminuted. He was in the hospital eighteen weeks, during which time numerous small pieces of bone came away, and the necrosis had evidently involved a considerable portion of the upper jaw. The lower part of the wound remained open for some time after his discharge from the hospital, and one or two small pieces of bone came away through an opening just below the internal tarsal ligament of the left side. This opening then closed, but ever since then there has been a purulent discharge from the left lachrymal sac and some from the conjunctiva. When I saw him he presented the following appearance: The bridge of the nose flattened and very much broader; nasal bones driven in, so as to leave the nasal cartilage projecting at a sharp angle; a deep hollow on left side of nose, where the nasal process of the superior maxillary is met with, showing a considerable loss of substance from necrosis; marked narrowing of the left lower meatus of the nose, owing to the left lateral wall of the nose having been driven in by the blow, or having sunken from the process of necrosis. Pus could be pressed out from the lachrymal sac through the canaliculi. Chronic conjunctivitis, with a tendency to the development of pannus on upper part of cornea. The original blow had evidently been directed from the right side towards the left, and from above downwards, for although the right nasal bone had been fractured, the violence had not extended to the right superior maxillary bone, nor was there any interference on this side with the nasal duct.

On the left side, however, there was evidently a permanent obstruction, if not obliteration, of the nasal duct. The canaliculi were both slit up, and a Weber's knife passed into the lachrymal sac. It was arrested at the junction of the sac with the duct, and could not be passed any farther. A Stilling's knife was then used, but with the same result—the resistance was a hard, unyielding wall. There was evidently an obliteration of the calibre of the duct by a sinking in of its bony walls. An attempt was then made to pass a probe upwards into the duct from its inferior opening in the nose, but this could not be found, owing to the above-mentioned narrowing of the nasal fossa.

There remained, therefore, only one thing to be done, destruction of the lachrymal sac; and this was effected in the same way as was described in the previous case. The slough came away on the sixth day, and then the cavity gradually closed, granulations springing up from the bottom.

Case III.—Stricture of the nasal duct and fistula of the lachrymal sac, with partial facial paralysis following injury.

Laborer, æt. 31; first seen in February, 1877. About two months previously, while excavating a subcellar,

a mass of earth fell from above upon him, completely covering him. He was immediately dug out, but remained unconscious for some time. His face was badly cut, and the hemorrhage was profuse. An examination showed a depressed fracture of both nasal bones, and of the nasal process of both superior maxillary bones, with considerable displacement of the fragments, particularly from above downwards and from the right towards the left. There was also partial facial paralysis of the right side with ptosis, and paralysis of the superior and external recti muscles of the right eye. When I first saw him the facial wounds had all healed, the cicatrices were contracting, there had been no necrosis of the bones, but the ptosis, facial palsy, and paralysis of the ocular muscles remained. There was an opacity of the right cornea from keratitis, with $V = \frac{20}{XL}$. The orbit was displaced downwards, about three-quarters of an inch lower than the other side, the lower lachrymal punctum was obliterated, and there was a fistulous opening into the right lachrymal sac just below the lower margin of the internal palpebral ligament, through which a probe passed into the sac, and pus was discharged. There was a cicatrix running from the side of the nose, through the lower lid just internal to the puncture, and involving the conjunctiva, showing where the lid had been lacerated and the canaliculus and punctum closed. Though the lower margin of the orbit was so far displaced, yet there was no break in its continuity perceptible under the finger, nor was there any sign of callus round a fracture to be felt.

The lower and upper canaliculi were opened with scissors, and then a Weber's knife introduced. This was arrested at the commencement of the nasal duct, and could not be passed any farther. A Stilling's knife with a sharp point was then introduced, and firm, steady pressure made from above downwards. The obstruction slowly yielded a little, which was somewhat encouraging, and the knife was then withdrawn, turned round 45°, and again introduced by firm pressure. This manœuvre was repeated until four incisions had been made, but still the end of the duct had not yet been reached. A Bowman's probe, No. 7, was then introduced, pushed down as far as possible, and retained in place by a band of adhesive plaster round the forehead for about ten hours. It was withdrawn and cold applications made until the next day. The knife was again introduced and an attempt made to extend the incision, but it was found that contraction had taken place since the removal of the probe, and that the work had to be done over again.

It was then decided to give up any attempt at reconstructing the nasal duct, which was as completely obliterated by the results of cicatricial contraction as if its bony walls had fallen in and come together. The only thing left was destruction of the lachrymal sac and obliteration of its cavity, and this was done by the same means employed in the two previous cases, though in a somewhat different manner. The external fistulous opening was enlarged, and the tissues freely incised down to the sac, and its entire anterior wall laid open. The nitric acid was then applied as before and the wound kept open and carefully cleansed. The slough came away on the seventh day, and then the cavity began to close, though the process went on somewhat slowly. At the end of about nine weeks the only sign left was a somewhat irregular cicatrix, which produced a small amount of ectropium of the inner end of the lower lid, but as there was not much overflow of tears, this was not interfered with.

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ON THE EFFECT OF STIMULATION ON AN EXCISED NERVE.

By WILLIAM LEE, M.D.

Baltimore, M.D.

Bernstein* has shown that taking, as we seem to be justified in doing, the negative variation seen on the galvanometer as an outward sign of the internal disturbance in a nerve-fibre which constitutes a nervous impulse, we may draw certain conclusions as to the nature of the latter—more especially that it is a wave of molecular disturbance which passes along the nerve; and he succeeded in estimating the wave length, form, and the rate of transmission. He does not make any statement as to the nature of the molecular movement concerned, but says it cannot be very different from those of electricity, magnetism, or heat,† and he does not seem to imagine that it could be a movement associated with or dependent on a wave of increased chemical metamorphosis passing along the nerve-fibre. If, however, the process were mere vibration, we have no reason to suppose that the passage of an impulse would exhaust the fibre. The molecules set swing by an impulse would, when it ceased, return to their position of equilibrium, and the fibre be in exactly the same condition as before; while, were the process one of chemical combination (it could not be one in which chemical separation preponderated, for that would necessitate a continual independent source of energy to carry it on), the passage of each impulse would use up some of the combining material, and so a nerve-fibre, removed from sources of supply and stimulated, ought to cease to be irritable sooner than a similar fibre not stimulated.

If, then, of two nerves removed from the body and treated as similarly as possible, except that one was stimulated more frequently than the other, no constant difference in the duration of irritability after removed was found to exist, we would be justified in concluding that the process was merely one of vibration, with a restoration of the *status quo* when disturbing force ceased; but if the stimulated nerve died sooner than the other, we would have to conclude that a process of chemical change (the using up of some alterable matter) was associated with the passage of the impulse. The experimental investigation of this question was suggested to me by Prof. Martin and was carried on under his direction in the Biological Laboratory of the Johns Hopkins University. The method of my experiment was as follows:

The sciatic nerves were removed rapidly, but with great care, from an animal, and placed at once in a moist chamber. This chamber contained two pairs of apolarisable electrodes (DuBois-Reymond's), and two pairs of platinum wires, each pair fixed in the bottom of a groove in a piece of paraffin. The distal end of each nerve was laid on one of a pair of apolarizable electrodes—the middle point lay on the clay of the other—and its central end over one pair of the platinum wires. The conducting wires from each pair of the DuBois electrodes passed to a Thomson reflecting galvanometer, keys being intercalated in their course, by which the natural nerve-current from either pair of electrodes could at pleasure be sent through the multiplicator or broken out of it. Each pair of platinum wires were connected with the secondary coil of a DuBois induction apparatus, having magnetic interruption, through the primary coil

* Untersuchungen über den Erregungsvorgang im Nerven- und Muskelsysteme. Von J. Bernstein. Heidelberg, 1871.

† L. c., page 36.

which was sent the current derived from two Leclanche cells arranged abreast. The position of the secondary coil in the experiments varied from 4 s.m. to 6 s.m. on the scale. By means of keys, the interrupted current from the secondary coil could, at will, be sent through either nerve or cut off from both. This complicated arrangement was necessary, as I had to use the cessation of the appearance of the negative variation on stimulation as a sign of the death of the nerve, the ordinary employment of contraction of the muscle, connected with it as a sign of the nerve's vitality, being unavailable on account of the complication which might be introduced by muscular fatigue or exhaustion. The electrodes were carefully prepared before each experiment, and tested with strings moistened with 0.75 per cent. salt solution laid over each pair of platinum wires, to see that they produced no deflection of the spot of light on the galvanometer's scale, either when the interrupted current was passing through the platinum wires, or when it did not.

The nerves having been laid over the electrodes as above stated, the progress of the experiment was as follows:

The natural current of each nerve was thrown into the galvanometer and measured, and then the interrupted current passed through the corresponding platinum wires, and the corresponding negative variation noted. If, as sometimes happened, no distinct negative variation was observed, a fresh pair of nerves was prepared, and the experiment commenced anew. A suitable pair of nerves having been obtained, one was frequently tetanized, the other only rarely, and just long enough to allow its negative variation to be observed, and the time at which each ceased to give a negative variation noted. As, on account of the shifting of keys necessary to connect the nerves alternately with the galvanometer, the exact moment of death of each nerve could not always be found, the nearest five minutes to the time of the discovery of death was taken in each case as the time of death. In the earlier experiments the interrupted current was sent through the worked nerve for five seconds at a time, with ten seconds' rest before the next tetanization. Next I employed ten seconds' stimulation, alternating with five seconds' rest; and finally, after varying still more the time, I continuously sent through a weak stimulation, with, in each case, such brief interruptions as were necessary from time to time for testing the other nerve. The earlier experiments were performed on the sciatic nerves of the terrapin; the latter, those of the frog. In alternate experiments the first and the second nerve removed from the body was the one chosen for stimulation. The result was that in no case did the worked nerve live so long as the resting; the greatest difference being 50 minutes, and the least 20 minutes; the average difference was 35 minutes. The greatness of the difference of time, and its invariable relation to the stimulation, seemed to preclude the supposition that it was due to accidental causes; but to be certain of this I made four experiments with nerves removed and placed as above, but left at rest, except for the short similar stimulation applied at intervals of five minutes to each, to ascertain if it still gave a negative variation. In no one of these experiments did the time of persistence of functional activity (after removal from the body), in the nerves of each pair differ more than 5 minutes. In one case, taking the above rule of assuming the nearest five minutes to the time of death, both nerves died simultaneously; the actual difference observed was two minutes. Detailed account of the experiments is given in a tabular form below.

As a result we may, I think, conclude that the nervous impulse is not simply a wave of movement of simple physical character passing along the molecules of a nerve-fibre whether that be part of it (which is perhaps possible) or no; there is something more. When the impulse has passed the fibre does not return to its previous state, it is permanently altered (if removed from the circulation), in a way that makes it less capable of further activity, and it consequently ceases to respond to stimuli sooner than it otherwise would do. It seems reasonable to suppose that this change is due to the using up of some material in the fibre as the impulse passes along it—that, in fact, the wave of molecular movement, which accompanies, or rather *is* the impulse, is not simply a rhythmic swing from position of equilibrium and back to it again, such as, for example, air experiences when a sound wave passes through it, but is a molecular movement associated with chemical changes—in fact, is a wave of increased chemical metamorphosis.

According to Pflüger's well-known avalanche theory, the greater effect produced on a muscle, when its nerve is stimulated at a distance, than when the same stimulus is applied close to the muscle, is due to the fact that nervous impulse increases as it travels along the nerve-fibre. This, of course, implies a using-up of some source of energy as the impulse travels (*i.e.*, a conversion of potential energy stored in the fibre into kinetic). The disturbance in one section does not simply pass on into the next unaltered, but rather acts on it as a liberating force arousing the dormant activity of energy, yielding material in the next section; the process would be like that occurring in a gradually increasing train of gunpowder ignited at its smaller end. There are several objections to this "avalanche theory" as an explanation of the phenomenon in question, but one object which I had in view in undertaking the above experiments was in reference to it. If, namely, the result had been that the stimulated nerve died no sooner than the resting, this theory, which necessitates during the passage of an impulse a using-up of material (of which the nerve removed from the circulation could only have a limited store), must be completely disproved. As will be seen, the actual result obtained does not affect it one way or the other.

TABLE I.—STIMULATED AND RESTING NERVES.

No. of Expt.	Animal whose nerves were used.	Durat'n of vitality of excised stimulated nerve.	Durat'n of vitality of excised resting nerve.	Difference.	Character of stimulus.
1	Terrapin.	80 min.	110 min.	30 min.	Tetanized 5 sec. Rest 10 sec
2	"	70 "	110 "	40 "	" 10 " " 5 "
3	"	80 "	115 "	35 "	" 15 " " 20 "
4	"	70 "	100 "	30 "	" 30 min. " 20 min.
5	"	80 "	110 "	30 "	" 10 " " 15 "
6	"	65 "	105 "	40 "	" 35 sec. " 40 sec.
7	"	80 "	100 "	20 "	" 35 " " 10 "
8	"	75 "	105 "	35 "	" 20 min. " 30 min.
9	Frog.	65 "	110 "	45 "	" 5 sec. " 10 sec.
10	"	80 "	105 "	25 "	" 10 " " 5 "
11	"	80 "	100 "	20 "	" 20 " " 30 "
12	"	80 "	105 "	25 "	" 20 min. " 30 min.
13	"	65 "	110 "	50 "	Tetanized constantly.
14	"	70 "	115 "	45 "	" "
15	"	65 "	110 "	45 "	" "
16	"	75 "	115 "	40 "	" "

Average life duration of stimulated nerve, 75 min.
" " " nerve at rest, 110 "
" difference in favor of resting nerve, 35 "

TABLE II.—BOTH NERVES RESTING.

No. of Expt.	Animal used.	Duration of vitality of first nerve excised.	Duration of vitality of sec'nd nerve excised.	Difference	Mode of Stimulation.
1	Frog.	105 minutes.	110 minutes.	5 minutes.	Both at rest.
2	"	105 "	110 "	5 "	" "
3	"	110 "	115 "	5 "	" "
4	"	106 "	108 "	2 "	" "

Average life duration of first nerve excised, 105 min.
" " second " " 110 "
" difference of nerve excised. 4 "

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

EMPYEMA FOLLOWING PNEUMONIA—EARLY ASPIRATION—RECOVERY.

THE woman was admitted to the hospital in June, 1875, and had a certain amount of pus removed from the right pleural cavity. She left the hospital before recovery was complete, got married, and upon her return for examination exhibited a fine-looking boy about one year old. As far as her countenance indicated she was in perfect health.

The history of this case during her stay in the hospital in 1875 was as follows:

She was 22 years of age, temperate, and gave no evidence of specific disease. Her mother died of cancer; otherwise her family history was good. One morning in June, 1875, she was seized with a chill which lasted for several hours, followed by fever and pain beneath the right breast of a severe lancinating character, which continued throughout the night of the same day and up to the time of her admission to the hospital on the 22d of June—two days after she was attacked. On admission, her face was flushed, the pain in the side intense, the temperature 105° F. She was placed in bed, and a full dose of quinine administered. She had the physical signs of pneumonia at that time, such as dulness upon percussion, increased vocal fremitus, bronchial breathing, etc.

She passed through the pneumonia. On the 7th of July there was evidence of fluid in the right pleural cavity, and on the 20th of July a hypodermic needle was introduced and pus obtained. On the 23d of July, an aspirator needle was introduced and ʒ xvi. of pus removed. The expectoration was profuse and muco-purulent, but there were no evidences of pneumo-hydrothorax. On the 28th of July, the patient's friends, not wishing to have her "stuck with the needle," removed her from the hospital. At her examination, May, 1877, she stated that, after her removal from the hospital, she expectorated large quantities of purulent material, but did not have her chest aspirated. In May, 1877, there was found good resonance and good respiration over the entire right side of the chest. The woman had not noticed at any time that one side of the chest was smaller than the other. The case, then, was interesting as evidence of the value of early aspiration with the view of preventing retraction of the chest walls. What became of the pus which remained in the chest after the aspiration, and that which formed subsequently, was a question. It was thought probable that perforation of the lung took place and that the pus was removed by expectoration.

DIABETES MELLITUS—CHRONIC BRIGHT'S DISEASE—IMPORTANT CLINICAL QUESTION.

There were several points of interest in the case, which gave the following history:

A female patient, aged 48, a large and apparently stout, healthy woman, complained of having had cough and expectoration for many years, of having raised blood occasionally, and of having had rheumatism several times. (?) She had never noticed any change either in the quantity or color of the urine until about one week before admission into the hospital, when she began to pass more frequently than usual and in larger quantities; at the same time she had marked increase of thirst as compared with that present before admission. About a week previous to her admission she also noticed that her right foot and leg were swollen, and she had some vomiting, but no headache. At the time of examination she complained of pain in the joints and lower extremities. On physical examination the thoracic and abdominal organs were found normal.

The urine was acid, pale in color, had a specific gravity of 1040, contained albumen and large hyaline casts. Farther examination showed that the urine contained sugar, and the quantity passed daily was ʒ xxviii. Her appetite was poor and thirst considerable. She had received no injury upon the head, nor were there any cerebral symptoms.

The *first* point of interest in the case was the coexistence of Bright's disease and diabetes mellitus. The two affections are occasionally found associated in the same person. In some instances, it was believed, it is fair to impute the kidney disease to the persistent diuretic action of the sugar in the blood. Yet the two diseases are not found very frequently associated.

It has been thought that there is a certain amount of conservatism as regards the renal disease in the diabetes; the presence of sugar in the urine acting as a diuretic, operates as a protection against the accumulation of urea in the system.

The *second* point of interest related to the duration of the two diseases. It seemed from the patient's account that the disturbance from which she suffers has extended back only one week before admission to the hospital. If that be true, and there was no diabetes prior to that date, it cannot be said that the diabetes produced the renal disease, for probably the renal disease had existed much longer, as there was no evidence that it was acute Bright's disease.

Assuming that the diabetes was of only a week's duration, it was stated in that connection that sugar occasionally appeared temporarily in the urine. The quantity is not large, sometimes only a mere trace, but the fact that a simple trace of sugar is occasionally found in the urine of healthy persons was regarded as an important fact, and one to be borne in mind, in order to avoid being led astray by the fact.

The *third* point of interest related to the quantity of urine secreted. The quantity was considerably reduced from the normal, the woman passing only ʒ xxviii. in twenty-four hours, and it had a high specific gravity (1040).

Was it because the kidneys were damaged, the secretory power diminished, and hence the presence of sugar did not excite diuresis? The question remained unanswered. With regard to *treatment*, it was proposed to do but very little. It was believed not to be judicious to place the patient upon anti-diabetic remedies, for the diabetes might prove to b

only temporary. The expectant plan was recommended until some positive indications for treatment were developed.

COLICA PICTONUM—NOTABLE EVIDENCE OF LEAD AFTER THE ADMINISTRATION OF A BATH CONTAINING SULPHATE OF POTASSIUM.

A male patient, a worker in lead, had been sick about three days. He was attacked with pain in the abdomen, in the region of the umbilicus; there was no vomiting, not much tenderness upon pressure, and *no rigidity* of the abdominal muscles. The absence of rigidity of the abdominal muscles was regarded as sufficient to exclude peritonitis, no matter how localized it might be. The pain had been continuous, day and night, and he had also had more or less pain in the chest and other parts of the body. The blue line was well marked. A bath containing sulphuret of potassium was given, and the man's hands became nearly black; his body also had very much the same color. His pain had been relieved by opium, and his bowels had been moved by jalap and injections of assafœtida. The visiting physician remarked that he had come to regard *croton oil and belladonna* as almost a specific for lead colic. One week after, the man was convalescent.

JAUNDICE TOLERATED FOR A LONG TIME WITHOUT GIVING RISE TO UNFAVORABLE SYMPTOMS.

A male patient, æt. 51 years, was jaundiced, and the skin had a sufficiently dark color to indicate that the jaundice had existed for some time. With the exception of pneumonia about twelve years ago, and "malarial fever" about eight years ago, continuing for two years, he had always been a healthy man. He had been in the habit of going on an "occasional spree," but knew of no cause for the jaundice which was present. It came on gradually, and had been present for *two years*. Notwithstanding the jaundice, his appetite and general health had remained good. The interesting point in the case was the tolerance of the coloring matter of the bile to such an extent and for so long a time without giving rise to grave symptoms. If the obstruction to the exit of bile is not absolute, such a jaundice may be developed and continue for a long period of time without doing special harm, except to the appearance of the patient.

SIGNS BY WHICH PHTHISIS IS RECOGNIZED IN ITS EARLIEST STAGES WITHOUT THE AID OF PHYSICAL EXAMINATION OF THE CHEST.

1. Retraction of the skin over the cheeks.

2. Cerulean hue of the sclerotic, due to anæmia of the conjunctiva.

In bronchitis and emphysema there is conjunctiva, and also in the later stages of phthisis.

3. Atrophy of the lips, of the ears, and a thin pinched appearance of the nose. Whenever the skin closely covers cartilages, as in the ears and nose, a showing through, as it were, of the cartilaginous framework is one of the earliest signs of loss of flesh.

4. Pallor of the cheeks and face as compared with each other and with the malar surfaces.

5. Dilatation of the nostril upon the affected side. This is the case in all pulmonary affections, but especially in the early stages of phthisis.

6. The respiration is invariably accelerated, and the disturbance affects exspiration as well as inspiration. In certain nervous disturbances the respiration is accelerated, but it is the inspiration only which is at fault.

7. Sinking of the clavicle more upon the affected side than upon the opposite, and giving the appearance of having a very long neck.

8. Great hyperæmia of the pillar of the fauces, present long before the pulmonary disease manifests itself, and continuing until pus is expectorated. When purulent expectoration is established, decomposed pus irritates the throat, and then the other parts usually become hyperæmic.

9. Intense congestion of the throat, early hoarseness, and vomiting are unfavorable symptoms, and indicate enlargement of the bronchial glands. This vomiting is caused by pressure upon the pneumogastric by the enlarged glands. A large proportion of phthisis cases will tell of having had sore-throat for a number of years previous to the development of any chest symptoms.

TREATMENT OF THE SORE-THROAT WHICH MAY LEAD TO THE DEVELOPMENT OF PHTHISIS.

The local application of a saturated solution of nitrate of silver in glycerine once in ten days was recommended. The theory was that an acute inflammation had a natural tendency to get well, whereas a chronic inflammation had no such tendency. The object was to substitute an acute for a chronic inflammation, and the inflammation caused by nitrate of silver recovered much quicker than that caused by most of the other caustics. Then use a spray or gargle of common salt-water three or four times a day. Occasionally an antiseptic should be added, and the best was said to be oil of cinnamon, wintergreen, pepper, etc. These oils all contain carbolic acid. Twenty drops of the oil of cinnamon added to a carbolic acid solution destroys the smell and rather increases its efficacy—certainly does not detract from it.

It was maintained by the visiting physician that enlargement of the bronchial glands was secondary to irritation in the throat; hence the possibility of such sore throats becoming the starting-point of tuberculous development in the lungs must always be taken into consideration. It was also said that, in a majority of cases in which enlargement of the bronchial glands was found at post-mortem, it would also be found that the patient had suffered from catarrh of the nose when alive.

Progress of Medical Science.

RESEARCHES ON THE TEMPERATURE OF SARCOMA.—In six cases of sarcoma, more or less pure, but all growing rapidly, Prof. J. A. Estlander, of Helsingfors, measured the temperature and compared the results with the temperature, measured with the same precautions, of the corresponding parts of the other side of the body. He constantly found an elevation of the temperature of the sarcoma of from 0.8 to 1.5 degrees of Celsus. This elevation is not due to any inflammation of the integument over the tumors, for in none of the six cases was the skin the seat of this morbid condition, and in one case the cutaneous covering no longer existed, the tumor being naked. Neither does the richness of the tumors in arterial blood account for the increased warmth, for the former, in some cases, surpassed that of the arterial blood in a normal condition. The author thinks that a great part of the phenomenon which he has observed is to be attributed to the morbid processes themselves, occurring with so much activity in the diseased tissues. This hypothesis also explains the fever which is often observed in patients afflicted with rapidly growing sarcomas. It

is naturally much easier to recognize an increase of temperature over a large sarcoma than over a small one; but in case No. 6, where the tumor was not larger than a split hen's egg, and the skin over it was completely movable and free, the temperature was more than a degree higher than over the corresponding part of the other side. The augmentation of the temperature is probably in direct proportion to the rapidity of growth of tumors in general, and the author is himself opposed to the conclusion that a warm tumor is necessarily from this fact alone a sarcoma. "As a general rule, one may only say that a hot tumor grows rapidly, and, according to all probability, is a sarcoma."—*Nordiskt Medicinskt Arkiv*, Bd. 9, 1st Häft.

Fecundation of the Hen's Egg in the Oviducts.—Dr. P. Tauber (*Naturh. Tidskr.*, R. 3, Bd. 10) divides this subject into two queries:

1. How long a time can a hen continue to lay fecundated eggs after separation from the cock, and how many fecundated eggs can such an isolated hen lay?

In the historical remarks with which the author introduces this section he refers to the assertions of Fabricius ab Aquapendente that one fecundation suffices for the remainder of the year, and Coste's doctrine that one fecundation is only effective for 5–7 eggs, which are laid in from 10–14, at the most 18 days after the hen's isolation—only dark yellow eggs of 15–35 millimetres diameter being capable of fecundation.

The author's investigations yielded the result that one treading suffices to fecundate 5–7, rarely 8 eggs, and that it was generally effective only till the 11th, rarely till the 18th day.

2d. Is there in the hen's oviduct any particular place which can be rightly designated as a seminal receptacle?

The author here gives a general view of the hen's oviduct, in which, among other things, he denies the presence of glands. With regard to his especial subject, he divides it into the "tube" and the "infundibulum." He directs especial attention to the structure of the last-named portion, especially to a zone near the border of the infundibulum, which contains numerous excavations; these are, in his opinion, the special seminal receptacles. He finds that it generally takes the semen from 14 to 24 hours after the treading to arrive at this zone.

In contradistinction to Coste's idea that the fecundation occurs in the ovary, his investigations show that this probably occurs in the infundibulum, and that it is highly improbable that it can take place in the ovary. Especial attention is directed to the fact that on the rupture of the follicle in the infundibulum the semen comes into direct contact with the germinal membrane.—*Nordiskt Med. Arkiv*, Bd. 9, Häft 1.

Syphilitic Fathers and Healthy Children.—Dr. Güntz, of Dresden, reports six cases in which the fathers of healthy children were the subjects of latent syphilis. In each of these cases at least two years had elapsed between the latest manifestations of syphilis and marriage. In several cases, the first child was syphilitic, the second healthy. In all of the cases, within a few years after the birth of their children, the deeper syphilitic lesions manifested themselves in the persons of the fathers, all of whom had had good reasons, among others the birth of healthy children, to suppose that the disease was eliminated from their system.—*Vjhrschr. f. Dermatol. ü Syph.*, and *Phila. Med. Times*, July 7, 1877.

Successful Removal of a Large Fibroid Uterus with Both Ovaries.—Mr. Knowsley Thornton relates a case in which recovery took place after removal by gastrotomy of a large fibroid uterus with outgrowths, and both ovaries. The patient was 38 years old, married, but had never been pregnant. The tumor had been first noticed nearly three years before. The operation was performed on January 10th. In opening the peritoneum a coil of intestine was wounded by the point of the knife, but the wound was at once closed by a continuous suture of fine silk. The pelvic portion of the tumor could not be dislodged, until the mass of the tumor was drawn out of the incision and used as a lever, by being pressed over the left iliac crest. This mass was then transfixed and ligated with two strong strings, and it was then cut off. Room was thus gained to get at the broad ligaments, which were transfixed and tied with double ligatures. The ovaries were then cut away. Finally the cervix was transfixed and tied, and the mass above it cut away. All the ligatures were cut short, and the abdomen was closed. The operation occupied rather more than an hour and a half. The ice-water cap was used on two occasions in the after-treatment, the temperature having risen to about 101°. On the ninth day some red, offensive serum came away per vaginam, and this discharge continued till the eighteenth day. It then ceased, and at the same time pain was complained of in the right iliac region, and the pulse rose to 124. On examination by speculum a small slough was found plugging up the external os, and on pulling it away a quantity of fetid pus escaped. Convalescence then progressed favorably, and on the thirty-seventh day the patient was able to go out.

Mr. Thornton believes that this is the first successful case of removal of the uterus and ovaries, in which all the pedicles were tied with silk and left free in the peritoneum. He prefers this to the extra-peritoneal method, thinking that it is attended by less danger of septicæmia or of hemorrhage, experience having shown that the danger of hemorrhage when the clamp or wire separates is by no means small.—*Obstetrical Journal*, June, 1877.

Case of Croup Cured by Swabbing out the Larynx.—Dr. Durodié, of Bordeaux, recently had under treatment a case of croup in a child seven years of age, in which tracheotomy became indicated. The parents, however, refused to sanction the operation, and the Doctor, as a last resort, determined to swab out the larynx according to the plan first recommended by Dr. Green, of New York. The child was securely held, and the left index-finger of the operator was introduced into its pharynx as far as the opening of the larynx; a small sponge, which was firmly secured at the end of a piece of curved whalebone, was then dipped into warm water, and, guided by the finger, was pushed into the larynx, where it was rapidly moved up and down three or four times before being withdrawn. This manœuvre was repeated three times at each visit, and each time the sponge, when withdrawn, was covered with the débris of false membranes. This treatment was continued four days, when all danger of asphyxia disappeared. When the treatment was begun, the patient was in the last extremity, and the improvement was manifest at once. Dr. Durodié thinks that the success was due in part to the reflex spasmodic movements provoked by the contact of the sponge with the laryngeal mucosa, these movements causing the ejection of the portions of the false membrane left by the sponge.—*Gazette des Hôpitaux*, June 19th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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MEDICAL CERTIFICATES IN THE DAILY PAPERS.

THE number of letters which we receive from medical men in this city and elsewhere, regarding the publication of medical certificates in the daily papers, proves to us that there is a strong feeling against the practice. It is easy to see why this is the case. In fact, were it not that certain parties persist in allowing their names to be used in the daily papers, in connection with a certain widely advertised mineral water, it would seem hardly necessary to argue the question. We may be, perhaps, too radical concerning medical advertising; but, if this be so, it is the result of a firm conviction that every species of it is absolutely wrong. Even if there was no Code regulating our relations to each other, there would be no excuse for such manifest unfairness as a privileged advertisement of one individual or set of individuals, to the exclusion of the others, equally if not more meritorious. We put it mildly when we say it is undignified to resort to such devices, but we have a right to mean a great deal more. If the rule was to publish every little operation in the daily papers, every little discussion in a medical society, and the like, there would be no occasion to do more in the interests of progressive medicine than stimulate the laggards to incessant zeal that they might make the best of their opportunities. As the opposite, however, is the case, we have some hope that the continued protests may be respected. Our confidence in the honor, dignity, and good sense of the profession is such that we cannot imagine it will tolerate, even on the part of its best men, such flagrant violations of the Code as those to which we refer. We believe the time has come to treat the whole matter fearlessly and above board. The exalted position of the individual magnifies his culpability. If this be not so, then the Code of Ethics has been framed merely for the benefit of the older men, who, while pretending to follow its letter, openly violate its spirit. The rank and file of the profession look to them for an example; but when the trumpets of the watchmen give an uncertain sound, upon whom must our faith rest?

In view of the strong feeling against individual advertisements in any and every form, it becomes every one who really has a desire to be just to his brethren and honorable to his profession, to avoid any appearance of evil, and thus not only abstain from giving offence, but be always ready with a good example.

The opinion of a professional man, as such, is only valuable on a professional subject. With medical men these opinions are respected in accordance with the relative standing of the individual who delivers them, and may or may not do good. This is legitimate enough as far as it goes, inasmuch as, in a discriminative audience of his peers, few if any can be misled. With the general public this is so different that medical certificates of any and all sorts, for the secular papers, are conventionally forbidden. The risk of evil consequences to the profession, in allowing any medical man who may choose to do so to advertise in such a covert manner, is hardly counterbalanced by any good which the public may obtain from the most extensive use of the best mineral waters in the world.

The line should be drawn somewhere, and why not at the top of the page? This is a question which so directly bears upon the duties of the comitia minora of our County Society that it seems almost like impertinence on our part to call attention to it.

Aside from the tendency to degrade medical opinion to the level of cheap and meaningless certificate writing, there is a tendency to prostitute it still further by ministering to the tendency for self-prescribing among the people, and lowering the public estimation in the efficacy of drugs generally. It does not require a distinguished medical man to prove that any particular mineral water is agreeable to the taste, and hence a beverage; that it is effervescent because it contains carbonic acid, and hence possibly useful to dyspeptics; but when they deliberately recommend an article which they are willing to classify as a medicine, to indiscriminate use with the public, it can hardly be considered a professional proceeding. If this be allowed as a precedent, we may next hear some of our distinguished physicians recommending to the public some new European novelty in the shape of a "corn salve," "pile ointment," or "hair dye." We are inclined to sympathize with the gentlemen in question for the unpleasant notoriety which they have gained in this matter, and ask for them a suspension of judgment until they shall have the time and opportunity to explain their positions, and possibly withdraw their names. Probably the gentlemen are out of town, do not see the papers, and are consequently not account-

able. In any event, let us hope for the best, and believe for charity's sake that these certificates were obtained by accident, and that the names are used without authority. At the most, however, the public will not suffer, as any who may be interested in trying the new medicine will know where to go, in case of difficulty, for first-class medical advice. With less distinguished men the case might be different.

THE HOMŒOPATHIC QUESTION.

In our present issue we publish a letter referring to the other side of the homœopathic question. This is but a sample of many others which we have received upon the subject, and so well illustrates the popular sentiment that we present it on that account to our readers. Although each writer says he is not warranted in speaking for himself, he still says substantially the same thing, and presents the general idea of the present correspondent. So far, then, we cannot blame the homœopaths for the lack of interest in the matter, or want of desire to be liberal on all questions affecting their peculiar doctrine.

Reviews and Notices of Books.

SYMPATHETIC NEURO-RETINITIS. By ADOLPH ALT, M.D. 8vo, 11 pp. New York. 1877. (Reprint from Report of Fifth International Ophthalmological Congress.)

ANATOMICAL CAUSES AND THE NATURE OF SYMPATHETIC OPHTHALMIA. By ADOLPH ALT, M.D. 8vo, 88 pp. New York. 1877. (Reprint from Archives of Ophthalmology and Otology.)

1. THE author admits that cases of sympathetic neuro-retinitis are very rarely mentioned, but thinks this is the result of a failure to diagnose the disease. It may also be claimed, perhaps, that he has himself made an incomplete diagnosis in some of the seven cases presented. In four of the cases the eye first affected was lost by a disease without an injury.

2. This article is based on the personal examination of thirty-two eyes, and the records of the examination of seventy-eight by others. The statistical results of these investigations are arranged in tabular form. Table first gives the condition of each of the tissues of the enucleated eyes. The other nine tables give details of the eyes lost by affections of the several tissues. The study of this brochure will prove highly useful to the specialist, and it may be regarded as a valuable contribution to the literature of the pathology of the eye.

METHOD OF PERFORMING POST-MORTEM EXAMINATIONS. With special reference to medico-legal practice. [*From the Charité-Annalen.*] By PROFESSOR RUDOLPH VIRCHOW. Philadelphia: Lindsay & Blakiston. 1877.

THIS monograph contains an introductory portion, which is followed by the post-mortem records of three cases. In the introduction a description is given of a systematic and scientific method of performing autopsies, with the reasons for pursuing a definite order in every detail of the examination. The records of the three cases were made in accordance with the principles laid down in the introduction, and beautifully illustrates how thorough, complete, and satisfactory examinations in medico-legal cases can be made. The established reputation of the author is a sufficient guaranty for the excellence of the book.

ALCOHOL AS A FOOD AND MEDICINE. A Paper from the Transactions of the International Medical Congress. By EZRA M. HUNT, A.M., M.D., President of the Section of the Am. Med. Association on State Medicine and Public Hygiene, Vice-President of the American Public Health Association, etc., etc. New York: Scribner, Armstrong & Co., 743 Broadway. 1877.

THE conclusions reached in this paper were "quite unanimously" adopted by the Section of the International Medical Congress before which it was read, and were ordered by the General Congress to be transmitted as a reply to a memorial sent to said Congress by the National Temperance Society. The memorial asked the Congress to declare that alcohol is not a food in any sense to the human system; that its improper use is productive of a large amount of physical disease, etc.; that when prescribed it should be done with conscientious caution, and a grave sense of responsibility; and that it should recommend total abstinence from alcoholic beverages.

The memorialists, probably, would not have received a more satisfactory answer, had a special committee been appointed by the Congress, than by accepting and turning over the paper presented by Dr. Hunt. The Doctor writes with ability and vigor, and we came near to saying with an incisiveness which comes only from a predetermined effort to drive King Alcohol out of the field entirely. His paper is a prime article for distribution by the prohibitionists, contains a goodly number of common sense sayings, and in argument is ingeniously arranged. The subject has been studied under three questions: 1. What is the value of alcohol as a food? 2. What is its value as a medicine? 3. How far is it modified by the variable composition of spirituous liquors, or by the unreliability in manufacture?

In answering the first question the author starts with the proposition that any article to rank as food must be convertible into tissue or force, in such a way as to contribute to healthy vitality and aid the body in the performance of its normal functions. The milk analysis is then taken as the most reliable key to the study of the other foods. On this basis it is argued that alcohol must be excluded from the nitrogenous foods; that it has no place among the heat and force-evolving foods; that it does not possess any power to produce an accumulation; that the statement cannot be accepted that because alcohol does not escape from the body it must be oxidized in the body, and therefore must partake of the nature of a food; that it cannot receive recognition as an accessory or auxiliary food; that it does not arrest metamorphoses of tissue and thus secondarily result in nutrition; that it does not act catalytically; and that, if a food, it is not a necessary food. Thus we have a most thorough eradication of alcohol from the dietary list.

The second question is answered in the same cleansing manner, and the author has routed alcohol from the list of medicines because it does not help to heal or repair that which occurs in consequence of disease. It is admitted, however, that it may possibly be classed among general stimulants, and that its use is permissible "if no other article is at hand, and may be never so good as a medicine in such emergencies" as sudden failure of the heart's action. Here we have a halting recommendation, followed by an admission that alcohol may prove itself a valuable medicine under cer-

tain circumstances. What more does the reasonable physician claim for any article which he places among his resources in treating emergencies? The expression "if no other article is at hand" seems like a conscientious interpolation, because, shortly afterwards, the warning is found that "even then it should not be relied upon alone, for there are attendant evils," and of those, embarrassment to the ready passage of the "agglutinated cells" to the extreme capillaries and disturbance of the rhythmical relations existing between the water, carbon, oxygen, etc., in the blood-globules, are enumerated. Now, this may be purely scientific—doubtless is; but there are, in medicine, many beautifully-spun theories which count but little at the bedside of the sick. It is probably the experience of a vast majority of successful practitioners of medicine that, in the treatment of numerous cases, alcohol plays a useful and important part, notwithstanding science has failed to recognize its "*modus operandi*, which is embarrassingly obscure." But it is to such loose clinical experience that the author objects. He has a right to do so, but the objection does not disturb the existence of the fact.

In answering the third question, or statement, the impurity of the alcoholics is brought forward to modify their applicability. If the profession was compelled to use every known alcoholic fluid, the argument might have some weight; but as it stands, it is of equal value in nullifying the "clinical experience" derived from the use of almost all other remedies, the same as that derived from the use of alcohol. Very many of our most successful practitioners, however, now employ only alcohol, not alcoholic preparations, and by so doing can regulate the dose with all the precision that any known preparation of medicine can be regulated. There is, therefore, no reason why clinical experience derived from the use of alcohol may not be as reliable as that derived from the use of any other remedy of known strength. But alcohol has not been used, generally, when alcoholic stimulants have been employed in the treatment of disease; hence, its effect has not been correctly estimated. Granted; but that fact cannot be used as an argument against the efficacy of alcohol as a remedial agent.

What the author says relative to social and moral questions, and the relation which the physician sustains to them, is worthy of a hearty approval. The conclusions at which the author arrives, however, are tame indeed, when compared with the argument by which they have been reached. They make one feel as though, having grasped the bull by the horns, the doctor cannot knock him down for fear of injuring his feelings.

THE ANCESTORS OF PRESIDENT MACMAHON.—President MacMahon comes from a medical family. His great uncle was the physician of Franklin, the friend of Voltaire, and a pronounced atheist. His grandfather received the degree of Doctor at Rheims in 1739, and in 1742 went to Autun. While there he became the physician and friend of three aged noblemen, married one of their relatives, and soon after received from them a gift of 2,500,000 francs. The deed of gift was sworn to before a notary named Changarnier. Many years afterwards the grandson of the Doctor, Marshal MacMahon, and the grandson of the notary, General Changarnier, were companions in arms in Africa. The heirs of the noblemen brought suit to recover the money given to Doctor MacMahon, on the ground of undue influence, but the suit was decided against them.

Correspondence.

THE HOMŒOPATHIC QUESTION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Noticing your remarks on homœopathy in the July 28th issue of your journal, and being pleased with your evident desire to treat the subject in a liberal and scientific spirit, I thought you might not object to the publication of a few remarks from the other side, especially if made in the same spirit. While I make no pretensions to any authority to speak for any one but myself, I am nevertheless well aware that very many of us (perhaps a majority) have such a desire for the prevalence of truth, and the advancement of medical science in all its departments, that we would hail with delight all new facts, whether they accorded with any previous ideas or theories we may have held, or not. I do not think it necessary that I should maintain that medicines which cure when given in accordance with the homœopathic formula, *similia similibus curantur*, effect that desirable end in a well known and definite manner. The question should be as to the fact of such result, not losing sight at the same time of the other fact, that this may or may not have been reached in the way we supposed; but if not, what matters that? While I administer medicines upon this method (whatever its real nature may be) in the great majority of my practice, I do not hesitate to admit that I often find cases where a rigid adherence to homœopathic doctrines would not, in my opinion, give the greatest relief to my patients. I might regard this as evidence of the incompleteness of my knowledge of this system, did I not know this departure in certain cases to be so general among practitioners of our school. I do not believe this law of cure to be an absolute and unvarying law of nature, because I have witnessed too many of its failures; and yet I could not be induced to deprive my patients of the benefits of it, and believe with you that "nothing in a progressive science can be exclusive."

If we claim that, and attempt to enforce it, the result must be that of complete inertia of medical science.

What is needed is more of the spirit of toleration among medical men, and the cultivation of such a spirit of impartiality as will prevent the rejection of anything on account of its source. Why, for instance, should Dr. Dessau after reading an article upon the action of small doses of certain medicines, consider it necessary to apologize to his learned colleagues, and disclaim any leaning towards homœopathic doctrines? He, or any one, has an undoubted right to use them in that way; but who did so first? And who in justice should have the credit of the good or evil resulting from their use in this way? Why should he deem it necessary to invent an explanation of their action, other than the homœopathic one, before venturing before a body of the so-called regular profession? Nothing but the existence of prejudice on their part, and the absence of that spirit of liberality and fairness, so necessary among scientific men, could make such measures and bush-beating excuses necessary. I know we have just such illiberal men in our own ranks; and I know also that many men of the old school are truly liberal individually, while in their societies they permit the illiberal majority to apply the regular lash, and hold them in the traces. Would it not be infinitely better and more in accordance

with the spirit of the age, if medical men would look to the medical education and attainments of those who wish to fraternize with them, and to their peculiar views upon minor questions afterwards? Why should a great medical school like the University of Pennsylvania refuse to accept a student from another than their recognized regular medical schools (see its advertisement in the MEDICAL RECORD), providing said student has as great a knowledge, when presenting himself, as if he had taken one or two courses with them? Is not the possession of a certain amount of knowledge of more importance than *the* place where it was obtained? Would it not be extremely silly for scientific men outside of medicine to break up into schools holding different views of this or that question, and refuse to have anything to do with each other because of this difference of opinion? One thing we all have need to complain of, and that is the low standard of medical education in this country. That a medical man can be educated thoroughly in all the branches he ought to understand, in two or even three years, is, we all know, an utter impossibility. Once this standard becomes sufficiently elevated in all medical schools, and physicians more imbued with the scientific spirit of the age—out of which alone progress can come, and which asks only for the facts, agreeable or disagreeable to their preconceived opinions, in order to adopt and hold until the next forward step is taken—may we not expect less intolerance and a greater desire to learn, no matter from whom that information may be derived. For my own part, I consider myself a physician, although, as a matter of fact, I am also what is known as a homœopathic physician, though I care but little for the latter designation. I am in direct fellowship and association with the latter body, because there alone I find that freedom of opinion which will enable me to believe what I please; and to arise in a medical society and recite the treatment of a case, either with infinitesimal or crude doses of medicines, without being abused and hooted from the platform. Until such freedom can be granted me in the old school ranks, I prefer to remain where I am, because I shall never surrender my independence while I live.

In conclusion, allow me to express the hope that the day is not far distant when all medical men will be found willing to work together for the common good of humanity, whether all believe alike in all things, or not. In this wish I believe you will cheerfully join me.

Yours truly,

S. J. BUMSTEAD, M.D.

DECATUR, ILL., August 11, 1877.

APPLICATIONS TO EUSTACHIAN TUBE

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I do not remember having seen mention made of the method I have used, for some time past, to reach the Eustachian tube with medicinal applications, and so forward it to you.

In common with many of the brethren, I was at first delighted with the nasal douche, but the deleterious effect of stimulating irrigation upon the auditory apparatus has long since caused its discontinuance by me, except in very rare cases. A method which I have found to answer every good purpose of the douche consists in the *gentle* snuffing into the nostrils, one at a time, of warm water, either simple or medicated, and its forcible expulsion by blowing. After having been thus cleared of adherent mucus, the nostril of the affected side may be filled with the medicinal solution, closed with the finger, and the head thrown back and towards the affected side. The solution will be immediately felt about the faucial opening of the Eustachian tube, and, if in sufficient quantity, will much more effectually bathe the entire post-palatal region than is possible by gargling.

As far as my observation goes, there is no possible danger in the use of this method, provided the remedy be very *gently* taken into the nostrils, and the solution employed be weak—depending rather upon its *frequent* use than upon its strength.

GEO. L. ANDREW, M.D.

LAPORTE, IND., August 13, 1877.

RHEUMATISM.—ITS TREATMENT BY SALICINE, SALICYLIC ACID, AND SALICYLATE OF SODIUM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In visiting the different hospitals since I have been in Europe, I have taken great pains to ascertain the results that have been obtained in the treatment of the above disease with the remedies before mentioned.

Like most other questions connected with the therapeutics of our profession, I find a great diversity of opinion expressed by those with whom I have conversed.

The two extremes I found in Prof. Sanders, of the University of Edinburgh, and Dr. Jacob, house physician to the Leeds Infirmary. The former gentleman assured me that, after trying salicylic acid to his entire satisfaction, he had become convinced that it was worse than useless in the treatment of rheumatic affections, on account of its tendency to derange digestion and lower the vitality of the patient, without eradicating the disease for which it was given. He treats the disease now entirely expectantly, shielding the parts affected from the air by carded wool, over which is applied a layer of oiled silk, and giving anodynes to relieve pain when urgently demanded.

Dr. Jacob, on the other hand, considers these remedies almost in the light of specifics for rheumatism; and gave me access to his carefully tabulated record of treatment in seventy-seven cases, a part of which he has already published. In forty-five of these cases the benefit was so marked that the value of the remedy was beyond a doubt. In these forty-five cases the average duration of the disease was only three days, the shortest being one day, and the longest seven days.

But these cases were not the only ones that were benefited by the treatment, for of the whole seventy-seven there were only five cases in which the remedy was an entire failure. Three cases out of the five cases proved fatal, two from the accession of typhoid symptoms, and one by the supervention of a cerebral complication.

The two classes of cases least benefited by the drug were those of moderate severity and those in which there existed an extreme condition of hyperpyrexia.

In the last mentioned class of cases the cold bath seemed to be the best remedy, and eventuated in a cure, except in the case of brain complication.

Cardiac symptoms supervened in only two of the seventy-seven cases, after the treatment was begun. The plan pursued was to allow the patients to remain in the wards, well covered up in bed, for from one to three days before any active treatment was tried. This was done in order to see whether the case was one of well-marked rheumatic disease, or only one of an abortive type. After this period had elapsed, if the patient had not gotten decidedly better by his rest and confinement in bed, he was put upon salicylate of sodium

or salicine in thirty-grain doses, or the salicylic acid in twenty-grain doses every four hours, until the temperature was brought down to the natural standard and all the other symptoms ameliorated.

After this result had been obtained, the remedy was given three times a day for a week or ten days, to prevent a relapse.

Of these allied remedies the salicylate of sodium and salicine were preferred, on account of their less liability to disturb to stomach.

It is also believed, from the experiments, that salicylate of sodium exercises the greatest control over the disease.

If symptoms akin to quinism should manifest themselves during the treatment, the dose of the remedy given should be lessened, but not discontinued.

Dr. Jacob believes that the reason why others do not get so favorable results in their trials with these drugs, is that they are not given in sufficiently large doses.

In looking over the charts, I found the influence of the remedy given upon the temperature was most marked.

In forty of the cases it was reduced within twenty-four hours to the natural standard, and never rose again in but very few of them.

W. S. Caldwell, M.D.
(Of Warren, Ill.).

London, August 1, 1877.

INGROWING TOE-NAIL.

To the Editor of The Medical Record.

Dear Sir:—In Medical Record No. 351, under "Medical Items and News," reference is made to a method of treating ingrowing toe-nails, recommended by Dr. C. G. Clarke in the *Medical and Surgical Reporter* for July 7, 1877, which consists simply in scraping with the point of a knife a longitudinal line along the middle of the whole nail to transparent thinness, supplemented, at your instance, by a piece of cotton under the nail.

We will not find, perhaps, in all minor surgery a more seemingly insignificant affection than an ingrowing toe-nail; yet I am confident few are more deserving of careful consideration, as the conscientious testimony of scores who have experienced its extreme painfulness can truly verify. Medical men, moreover, seem to regard its tender management as something unbecoming their professional dignity, and in the vast majority of instances send their patients away with the very valuable advice: "Scrape a longitudinal line in the centre of the nail to transparent thinness, ... and insert a piece of cotton under the nail;" or, what would accomplish the same in way of a cure when the case is well advanced, *paint the soles of the feet with tincture of iodine, and point them to the north pole.* This method, so favorably spoken of by Dr. Clarke, is one of the least palliative of all palliative measures; for, regarding the nail as an appendage of the skin, and essentially an epithelial structure, the degree of irritation brought about by the process of scraping would eventuate in proliferation of the epithelial elements, great thickening, and a condition of the nail resembling a cicatrix through its substance. Following this, firm and very pronounced adhesion of the nail to the subjacent matrix will be observed, with almost complete immobility of the nail, thus effectually destroying the prime factor of the palliation. It is important to recognize the comparative mobility of a healthy nail upon its matrix, and watch with care and caution to steer clear of any process that would cause this fixation to be more firm, if any good is expected from palliation. To study the morbid anatomy of this affection, let us take, for instance, a perfectly healthy nail, free from contortion or other anomaly, and apply the cause universally produced of ingrowing toe-nail, and note the progress of the changes thus instituted.

From the combined lateral and downward pressure the nail is made to sink deeply into the flesh, causing irritation, determination of blood to the part, and active congestion. The same exemplification of the law is found here as in other parts of the organism, viz.: that repeated or prolonged congestion leads to hypertrophy and hyperplasia of the cellular elements, with marked redundancy of the soft tissues. This condition being attained, we find the nail imbedded in a great mass of flesh. The pressure being gradual, it soon makes for itself a groove of condensed epithelial and cellular tissue. The pressure from without remaining the same, irritation will increase with the growth of tissue, until finally the nail is made to cut through this hardened groove, and is now found in actual contact with parts rich in blood-vessels and nerves. Continuing the irritation and causal factor, the redundancy of soft tissue increases, granulations spring up around the edge of the imbedded nail, accompanied with great heat, redness, pain, swelling, and a discharge of irritating ichorous and sanious pus. This brings us to the last and worst stage of ingrowing toe-nail, with its accompanying intense pain and unrest. Can any good now result from *scraping a longitudinal line in the centre of the nail*, or by *inserting cotton under its angle?* Is it not apparent that such treatment would be *worse* than useless? Is there, then, any radical cure for this nail aside from evulsion or any cutting operation? I will answer that there is a method of treating this nail that is quite as satisfactory as evulsion, far less painful, and above all, is an eminently conservative process. In the first place, drop a few drops of *Liquor Potassæ* (℥ iij. to ℥ i., as recommended by Dr. Sidney Ringer) upon this ulcerated surface with its imbedded nail, four or five times a day, and you will soon notice a diminution of the discharge, a cutting down of the granulations, and the edge of the nail beginning to pulpefy. Here I am met with the objection that this will give rise to intolerable suffering. The pain, acute at first, will soon pass away, and leave the patient much more comfortable than before. Practising this for a short time, a partly flexible condition will be observed in the inverted nail, which renders it, with proper care and caution, easily elevated, without causing the patient a deal of pain. When this is done, take a thin piece of selected *cork*, which, being smooth, flexible, and capable of accommodating itself to this bed of granulations, is gently inserted under the nail, to be followed by almost instantaneous relief. Compressed sponge, lint, and cotton wool are all open to a common objection, viz., their properties of absorbing the discharge from the granulations and retaining it in contact with the sore, which is highly detrimental to its favorable course and cure. They are, moreover, too heating, and not sufficiently firm and elastic to exercise the necessary degree and kind of pressure. These latter indications are fulfilled most admirably and perfectly by the cork, causing, by constant pressure, atrophy and wasting of the granulations and the great mass of redundant tissue. Aside from these properties of the cork, by constantly elevating the nail, it separates to an appreciable extent the nail from its matrix, thus causing, in the course of a few months, a marked narrowing of the nail.

Having suffered for a number of years with this an-

noying and very painful affection, and believing that a radical cure has been effected by the above method of treatment, I respectfully suggest it to those of your readers who are suffering from the same, as a substitute for evulsion, and much superior to any method of palliation.

I am, sir, with much respect,

Yours, etc.. J. D. NEET.

VERSAILLES, KY., August 6, 1877.

MAGOTS IN A NEWLY-BORN INFANT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The following seems worthy of record, if for nothing else than its curiosity:

On the 17th inst. I attended Mrs. P., primipara, in confinement at No. — West Twenty-sixth street, near Tenth avenue. Saw her and the child daily until the 21st, during which time nothing of moment occurred to either. The child was well washed daily, and apparently well cared for. Calling again on the 23d, I found the child with its right lower eyelid greatly swollen, and a number of angry-looking swellings on various parts of the face: all of which, the mother assured me, had developed within twenty-four hours. Examining the eyelid more closely, I observed an opening through the skin near the external angle of the eye, looking as if punched out. Firm pressure extruded from this orifice a magot about one-quarter of an inch in length. Directing my attention to the other swellings, I found *seven* more; viz., two from one opening in the upper lip, two from one place beneath the jaw on the right side, one on the left, one from the right ear, and one from the palmar surface of the left thumb, all alive and *squirming*. Next day, the 24th, the openings were nearly all healed.

Though *magots* are not unfrequently bred in neglected wounds in hot weather, I know of no recorded instance in which a newly-born infant, with a healthy skin, has been *fly-blown*.

LAURENCE JOHNSON, M.D.

323 WEST TWENTY-SEVENTH STREET, July 26, 1877.

New Instruments.

AN IMPROVED TROCAR AND CANULA.

DR. JACOB A. WOOD, of this city, has devised a very useful modification of the ordinary trocar-canula which will commend itself to every one who has met with the usual difficulties and annoyances attending the

operation for tapping. The liability to the sudden arrest of the flow through the canula is well known, as

is also the great difficulty, oftentimes impossibility, of re-establishing it until the patient is placed in bed, when the mattress and bed-clothing become more or less saturated with the oozing.

Dr. Wood, appreciating the cause of the difficulty to be a closure of the inserted end of the canula by omentum, or intestine drawn thither by the discharging fluid, conceived the idea of pushing away the obstruction and at the same time make the tube pervious. To secure these ends he slides into the canula a catheter, the closed extremity of which is perforated by numerous small holes. Dr. W. informs us that the instrument was made as early as 1855, and is only now brought to the notice of the profession not from any idea of its extraordinary merit, but simply at the request of several medical gentlemen who by accident became acquainted with its value and efficiency.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 19 to August 25, 1877.

ALDEN, C. H., Major and Surgeon. On account of illness, relieved from duty as Chief Surgeon of reserve column of troops of the Nez Perces Indian Expedition. S. O. 113, Dept. of the Columbia, Aug. 11, 1877.

STERNBERG, G. M., Major and Surgeon. To take charge of the sick and wounded at Camp Bancroft, I. T., proceed with them to Grangeville, I. T., and there establish a field hospital. S. F. O. 28, Hdqrs. Dept. of the Columbia in the field, July 14, 1877.

KIMBALL, J. P., Captain and Asst. Surgeon. Relieved from duty at Fort Brady, Mich., to proceed to New York City, and report in person at these Hdqrs. for assignment. S. O. 190, Div. of the Atlantic, Aug. 22, 1877.

DICKSON, J. M., Captain and Asst. Surgeon. Assigned to duty with U. S. Troops at Indianapolis, Ind. S. O. 190, C. S., Div. of the Atlantic.

HALL, WM. R., 1st Lieut. and Asst. Surgeon. Assigned to duty as Medical Officer with the cavalry commanded by Captain Perry, 1st Cavalry. S. F. O. 28, C. S., Dept. of the Columbia.

SALICYLIC ACID AND SALICYLATE OF SODA IN THE TREATMENT OF NEURALGIA.—Dr. Descroizilles has employed salicylic acid and salicylate of soda in seven cases of neuralgia, with satisfactory results. The number of cases is too small to permit a judgment to be formed from them of the therapeutic value of the two drugs, but they demonstrate the advantages which the salt possesses over the acid in the treatment of this disease. All the cases were cured, but in the three cases in which the acid was administered it produced a certain amount of deafness. In two of these cases it also exerted an energetic irritant action on the mucous membranes of the digestive and respiratory tracts, and in the other it caused vertigo, general weakness, and well-marked hebetude. The salt did not exert any injurious action either on the mucous membranes or on the nervous system. It was not necessary to give it in as large doses as the acid, and the cure was rapidly effected. From one to five grammes of the salt were given daily, while in one of the cases treated by the acid, as much as seven grammes were given in one day. In all the cases the treatment was begun with small doses (1-2 grammes), which were increased by a gramme a day until the desired effect was obtained.—*Le Progrès Médical*, July 21st.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending August 25, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Aug. 18	1	25	42	2	13	17	0
Aug. 25	0	14	44	3	10	29	0

DEGREES IN MIDWIFERY.—Dublin has begun to confer a new degree in midwifery: M. A. O., or Magister Artis Obstetriciæ.

MEDICAL SOCIETIES.—The various medical societies will resume their meetings during the present month.

AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES will hold its eighth annual meeting at Chicago, Ill., September 12, 1877.

DEATH AFTER CHLOROFORM.—An inquest was recently held in Dawlish, Eng., touching the death of Sarah Crudge, æt. 23 years, who died suddenly soon after an operation for squint, and after chloroform had been administered. Deceased was thoroughly examined by Mr. Cann, the operator, and considered a fit subject for anæsthesia. Four drachms of chloroform were inhaled. After the operation deceased spoke to him and appeared perfectly right; she then fell into a sleep, her pulse being quiet and regular. In two and a half hours afterwards she was dead. The immediate cause of death was found to be effusion of blood on the brain.

THE PLASTER-PARIS JACKET appears to take very well, not only with the profession, but the public. Its adjustment before an audience is so easily made, and the demonstration of its usefulness so impressive, that it has found great favor with many surgeons who are lecturers and teachers. The outside public also appreciate such exhibitions. We wonder how Prof. Sayre will feel to read in a Buffalo newspaper that a surgeon of that place invited a reporter to be present at such an exhibition, and also to read a description of the operation in the said papers. But why not educate the public in these matters, and confine the treatment of such cases to hospital surgeons rather than to ordinary quacks.

THE VISITING CORPS OF PHYSICIANS FOR NEW YORK.—A report in relation to the operations of the Special Corps of Visiting Physicians, from July 18th to August 14th, was presented to the Board of Health yesterday. It states that they visited during the above period, with the aid of five members of the Vaccinating Corps, 23,566 houses, 131,573 families, treated 4,719 cases of sickness, and distributed 5,128 excursion tickets for the Floating Hospital of St. John's Guild. As these appointments were not all made on the same day, the average number of days occupied in the service was twenty-seven, making an average of about ninety-four visits per day for each visitor. The greater portion of sickness, of course, was found in the crowded tenements of the Fourth, Sixth, Seventh, Tenth, Eleventh, Thirteenth, Seventeenth, and Twenty-second Wards, a condition inseparable from this class of dwellings, as at present occupied; for wherever there is density of population there is a proportionate amount of sickness, not only from the fact of there being large numbers of people within a given area, but overcrowding almost always implies poverty, want of proper food, neglect of cleanliness, increased amount of refuse, and imperfect removal of excreta. This system of house-to-house visitation is, they say, attended with many advantages to the poor.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.—The following letter from a country practitioner will explain itself:

"SIR—I am lately in receipt of a communication from the 'Committee of Publication' of the Medical Society of the State of New York, *stating*, that pursuant to resolutions of the Society, adopted in '76, 'each permanent member is required to pay an annual assessment of two dollars (whether he takes the volume or not), and that by section second a permanent member shall not be permitted to *register* (at the meetings of the Society) until his dues shall have been paid. Am I then to understand, my dear editor, that, having many years agone served as a delegate from our County Medical Society, and having been admitted to honorary membership in the State Medical Society, by virtue of the laws then extant, I am forced, by an 'ex post facto law,' to contribute to the issue of the 'Transactions,' or have my name removed from the roll, be disfranchised, excommunicated, and live only in the records of the past?

"The Society does not demand an assessment of two dollars to meet its current expenses; it simply insists that each and every permanent member shall pay a certain amount for a copy of 'Transactions,' which may be a desirable addition to their library, or not. If sundry members choose to enlighten the medical public at a costly rate, is it incumbent upon the aforesaid 'public' to pay so dearly for the 'whistle'?

"Our 'up country' brethren are slow, patient, law-abiding men, who, whilst hailing any progressive movement, cautiously watch innovations which have a tendency to deprive them of certain vested rights, and with good reason, they are chary of the old time quotation 'sic vos non vobis.' Yours truly,

"T. E. RURE."

HYGIEOPOLIS.—Dr. Richardson's projected City of Health, at Courtland, England, will probably be commenced this autumn.

QUACKS IN CANADA.—Quacks are being persecuted in Canada. The fact of advertising in the daily papers is considered a strong point in evidence against them. In New York, however, there would be some difficulty in separating the goats from the sheep, so far at least as advertising is concerned. We would suggest to our friends across the line that they might make some exceptions concerning medical certificates for wines, mustards, mineral waters, medical colleges, and reviews of medical books.

LICENSED MIDWIVES.—A comprehensive scheme for the examination and registration of midwives is under consideration by the Medical Council of Great Britain.

HOW TO DEMONSTRATE THE PRESENCE OF CARBONIC OXIDE IN THE AIR OF A ROOM.—According to Prof. Böttcher a solution of chloride of palladium is a good reagent for carbonic oxide and carburetted hydrogen. Strips of linen or cotton soaked in a concentrated solution, as free from acid as possible, of this substance, assume an intensely black color when brought into contact with the above-named gases.

MEDICAL INSPECTOR DELAVAN BLOODGOOD, U.S.A., has been detached from the Navy Yard, New York, and ordered to the European station as surgeon of the fleet.

Dr. Erisman, the most famous of the pupils of Pettenkofer, has been sent to the seat of war by the Russian Government; he is commissioned to take charge of the disinfection of the battle-fields.

Rattlesnake Bite, Indian Remedy for.—T. E. Wilcox, Assistant Surgeon, U.S.A., stationed at Camp Supply, I. T., writes under date of August 8, 1877:

"The following is the Cheyenne Indian method of treating rattlesnake bite:

"The wound is excised, then gunpowder placed upon it and ignited. After this the stem of chenopodium album—pig weed—lamb's quarters—mixed with tobacco (both chewed), is bound upon the cauterized wound.

"Of course the exeision and cauterization are the effective agents, but the Indians are very careful to conceal the chenopodium from white men."

Hydrophobia resulting from the Bite of a Cat.—Dr. Bochez, of Pau, reports a case of hydrophobia in a woman who was bitten by a cat. The animal had been shut up for twenty-four hours while in heat, and deprived during that time of food and drink. The symptoms of the disease set in ninety days after the bite. The patient died, but an infant, which she had nursed up to the moment the disease set in, continued in good health.

A Martyr to Science.—M. Alfred Deshairs, aged 34 years, Assistant to the Chair of Chemistry in the Collége de France, was recently found stretched on the floor of his laboratory in the rue Cujas, where he lived. He had been dead two days.

There is every reason to suppose that he was accidentally poisoned. Some specimens of a chemical agent, which he had long been studying, were found near his body, and it is probable that in an attempt to determine, by personal experiment, the effects of the agent, he was overcome by the poison before he was able to obtain the antidote.

Legal Medicine.—The Prefect of Police of Paris, after consulting with the Minister for Public Instruction, has decided to comply with the petition addressed to him by the Dean of the Faculté de Médecine, for the establishment of a course of lectures on legal medicine, to be delivered at the Morgue. The professor will be chosen by the Faculty. The lectures will be delivered twice a week from the 1st of November to the 1st of April. Only doctors and medical students of at least three years' standing will be admitted; they will be provided with untransferrable tickets.

Diseased Meat.—In the town of Wurzen, in Germany, a large number of persons were taken sick last month, in consequence of eating the flesh of a diseased cow. Up to the 18th of July over one hundred persons had been affected, three of whom died. The number of victims at that date seemed to be still increasing. Those affected suffered from acute intestinal catarrh, generally with symptoms of severe cholera-morbus. An investigation of the outbreak is in progress.

Prof. J. H. Pooley, of Sterling Medical College, Columbus, Ohio, has accepted the invitation to finish the course of lectures at Dartmouth, commenced by the late Prof. A. B. Crosby.

Prophylaxis of Scarlet Fever.—Dr. W. H. Burt, of Chicago, believes that milk diet is a good, if not sure, preventive of scarlet fever. He has been led to this conclusion by his own and others' observations regarding to the striking immunity from this disease possessed by nursing infants, and also by the fact that milk diet is a known prophylactic against lead-poisoning among those who manufacture white lead. In children exposed to the disease he orders, according to age, from one half to a pint of milk at each meal. He believes that the cases of nursing infants getting the disease can be explained by the use of vitiated milk. He has employed his method quite extensively in cases exposed to the disease, and has succeeded in all of them in preventing the invasion.

American Social Science Association.—The general meeting of the American Social Science Association for 1877 will take place at Saratoga, commencing Tuesday evening, Sept. 4th, with the Annual Address of the President, Mr. David A. Wells, and continuing through the 5th, 6th, and 7th, both day and evening.

Among the most interesting features will probably be the discussions on educational, industrial, social, and other questions in the Southern States, to be held by Hon. J. Randolph Tucker, of Virginia, W. L. Trenholm, of Charleston, Gen. J. M. Logan, of Virginia, Hon. Thos. F. Bayard, of Delaware, and others.

In the health department, papers will be given on Thursday and Friday, by E. G. Loring, M.D., on "Is the Intellectual World becoming Near-sighted?" F. Winsor, M.D., and others, on "Warming and Ventilation of School-houses." Mrs. A. C. Martin (of Otis Place School, Boston), on "Injury to the Health of Girls from Imperfect Early Training." A. H. Nichols, M.D., on "School Desks and Seats," and the Secretary, D. F. Lincoln, M.D., on the "Half-time System of Education."

All are cordially invited to be present, whether members of the Association or not. Those attending will be received at reduced rates by the United States Hotel; fares between New York and Saratoga will also, probably, be reduced.

Copper Ear-rings.—While the question whether the salts of copper are or are not poisonous, was being discussed in Paris, the journal *El Criterio Medico* published two cases, which prove that the use of ear-rings made of copper may be followed by unpleasant consequences. The patients were two young girls, both of whom suffered from blepharitis, and one of them also from inflammation of the lower part of the left auricle. All the usual remedies proved inefficacious, but both the patients recovered as soon as their copper ear-rings were discarded.

Mortality among Infants in Berlin.—According to the statistics of the Berlin Board of Health, the mortality among the children in that city has reached an alarming height. During the last week in June, 722 children under one year of age died, the great majority of them from diarrhœal diseases. The mortality among children under five years of age was 852, and the entire mortality of the city was 1,055, which would give an annual death rate of 54.7 per thousand. A committee has been appointed to inquire into the causes of this excessive mortality, and particularly to examine the nature and quality of the food supplied to infants.

Rest on Sunday.—The pharmacists of Algiers have informed the public that their establishments, with the exception of six, will be closed on Sundays, from June to October, inclusive. The six that are to be kept open will be located in different parts of the city, each druggist keeping open in his turn. The addresses of the stores that are open will be placarded on the doors of those that are closed.

Dr. Bunsen, of Heidelberg.—At the end of the coming semester, Dr. Bunsen, the eminent teacher of chemistry in Heidelberg, will celebrate his fifty-year jubilee, he having been engaged that length of time in teaching.

Original Lectures.

LECTURES ON DISEASES OF THE HEART.

By AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Reported for THE MEDICAL RECORD.]

LECTURE I.

SYMPTOMATIC PHENOMENA ACCOMPANYING ORGANIC LESIONS AT THE MITRAL ORIFICE.

GENTLEMEN:—I shall next ask your attention to the symptomatic events and diagnostic phenomena connected with organic lesions at the mitral and the aortic orifice. You will please recollect that I have divided valvular lesions into three groups:

1. Those which involve more or less change in the valves or orifices, giving rise to obstruction to the current of blood.

2. Those which involve incompetency of the valves and permit regurgitation of blood; and

3. Lesions which involve neither obstruction nor regurgitation, and which are therefore innocuous.

In a practical point of view, the latter is a most important group. The signs which we have considered enable us to recognize valvular lesions; enable us to localize them, to determine whether they involve obstruction or regurgitation, or, as is not unfrequently the case, both obstruction and regurgitation. But there are lesions giving rise to signs that do not involve either obstruction or regurgitation, and for the time being, at least, are innocuous. Practically, it is important that you should take cognizance of this latter fact, and not consider, because cardiac murmurs are heard, that we have, necessarily, lesions which are of very grave importance.

There is another clinical fact which is important, namely, the valvular lesions do not produce of themselves grave results. As a general statement, this is true. The valvular lesions do not as a rule produce symptomatic events until they have led to enlargement of the heart, and it is the enlargement of the heart which stands in immediate relation with the symptomatic phenomena. Further, the valvular lesions do not produce grave symptomatic phenomena until, in the enlargement of the heart, the dilatation predominates over the hypertrophy. The hypertrophy is a conservative provision, and as long as it predominates the organ is enabled to perform its function without grave difficulties; but when the dilatation predominates, the heart becomes weakened, and then it is that we have grave results as the consequence of valvular lesions.

Let us first direct our attention to lesions found at the mitral orifice.

In this specimen, as you will see, the mitral orifice is very much narrowed; so much so as to admit but little more than the end of one finger. The heart is also very much enlarged, but the enlargement does not affect the left ventricle at all; its walls are not thickened, and its cavity is not increased in size. But when we look at the right side of the heart, there is evidently an enlargement of the right ventricle; its walls are somewhat thickened, and its cavity is dilated. We have, then, in this specimen, hypertrophy with dilatation affecting the right side of the heart, and the dilatation predominates. I know nothing of the history of the case, but it is fair to presume that more or less of the symptoms to be spoken of to-day were exemplified during the life of the patient. Let us consider what those symptoms are.

In the first place, I will point to a general connection existing between the symptoms and the lesion. In almost all cases of valvular lesion of the heart the progress of the lesion is slow. I hardly need say to you that in a very great majority of cases they have their origin in an endocarditis complicating acute articular rheumatism. Now, for example, the patient has acute articular rheumatism, endocardial inflammation is developed, the patient apparently makes a complete recovery, and many years may elapse before any symptoms referable to the heart are developed. This is true as a general statement. What is the first symptoms which attract the patient's attention? Is it pain? No. As a rule, if we except angina pectoris, we may say that organic lesions of the heart are unattended by pain. This statement is quite opposed to the popular idea, so that we are often consulted by patients who are suffering from pain in the neighborhood of the heart, and naturally enough suppose that it indicates disease of the heart. In general the pain in those cases is due to pleurodynic or intercostal neuralgia.

The patient may have been conscious of more or less increased force in the heart's action, or palpitation, but very likely it has not attracted his special attention, even when he first comes to the physician. The heart's action has been increased in force for some time before consulting the physician, but this increase has taken place so gradually, so imperceptibly, that the patient has become accustomed to it, as a rule, and does not regard it as worthy of mention. Again, a patient with organic disease of the heart may have palpitation as a functional disorder irrespective of that disease. It is not uncommon for persons to suffer from functional disorder of the heart in consequence of anæmia, etc., and under those circumstances the functional disorder may occur and have no connection at all with the organic lesion. This is an important practical point to be decided in individual cases, but I will not stop to take the question into consideration at the present time. We do not, then, find that the patients have pain, or complain of disturbed action of the heart as the first symptom of organic disease, but as a rule, that which leads them first to consult a physician is *want of breath upon exertion.*

In general, the symptoms proceeding from each kind of valvular lesion at the mitral orifice are the same. There is no special or material difference.

The want of breath upon exertion is the symptom of which the patients commonly first complain, and when they are asked how long they have suffered from shortness of breath, it will be found that perhaps they have noticed it for weeks or months. It has finally increased to such an extent that they are unable to take any active exercise without panting, and that fact leads them to think there is something wrong, and they consult a physician. We then examine the chest, and find evidence of enlargement of the heart with mitral lesion, obstructive or regurgitant, or both. Assuming that the disease is progressing, that the dilatation ceases to hold a direct proportion to the compensating hypertrophy, the want of breath upon exertion grows more and more troublesome, and finally there is constant suffering from that symptom, even while the patient remains at rest. The reason why these patients suffer from want of breath is, that the valvular lesions prevent the free passage of blood

through the lungs; in other words, gives rise to pulmonary congestion, and in proportion as the blood flows with insufficient force it is insufficiently oxygenated, and hence the feeling of want of breath.

Following out this effect, there comes a time when the patient suffers from more or less dyspnœa constantly, is unable to lie down at night, and he suffers from great fatigue incident to the fact of being unable to assume the recumbent posture.

When the dyspnœa has reached this degree, there is one symptom which is almost uniformly present, and that is general cardiac dropsy. When we have general dropsy it proceeds usually from lesions either of the heart or kidneys; hence the division, cardiac and renal dropsy. General dropsy may occur from other causes, but, in general, when present, it depends either upon cardiac or renal disease, or upon both combined.

The cardiac dropsy makes its first appearance in the form of œdema of the lower extremities, and extends more or less rapidly, until finally the œdema becomes generalized, and we have anasarca. When this is the case there is usually more or less fluid in the serous cavities of the body.

There is a certain degree of relation between the quantity of dropsy existing in the serous cavities and that present in the subcutaneous areolar tissue; and, although it cannot be expressed mathematically, yet, in a practical point of view, the relation is certainly very clear. If we find that there is dropsy of the peritoneum, much out of proportion to the subcutaneous œdema or anasarca, we have a right to infer that we have to deal with something more than cardiac and renal disease, and probably it will be found that disease of the liver is also present.

Fortunately, there is not so much dropsical effusion into the pericardium, in connection with general dropsy, as into the peritoneal or pleural cavities. Now, this general dropsy, other things being equal, we may consider as evidence of weakening of the heart from dilatation of its cavities. To what does that stand in an important relation? It has a direct and important relation to dilatation of the right side of the heart. We have seen, and this specimen illustrates that fact, that the first effect of mitral obstructive or regurgitant lesion is to produce dilatation of the left auricle; then follows pulmonary congestion, and as the result of that congestion the right side of the heart becomes over-filled; the consequence is, an undue action is excited; hypertrophy follows to compensate, and goes on until it reaches its limit, and then dilatation takes place and increases until it becomes predominant. When this point has been reached, there is more or less dilatation of the right auricle, and then we have an obstruction to the return blood throughout the system.

The dropsy then stands in immediate relation to weakening and dilatation of the right side of the heart, and, still further, to dilatation of the right auricle.

There is another cause for dyspnœa, in these cases, other than mere pulmonary congestion. Pulmonary œdema is liable to occur. It rarely occurs in connection with mitral obstruction and regurgitation as a sudden development, but to a greater or less extent it is liable to occur as a result of the constant pulmonary congestion, and when it does occur diminishes the pulmonary capacity and increases the dyspnœa. Auscultation will enable you to determine how much pulmonary œdema is present. The pulmonary congestion leads to more or less cough and expectoration as the result of a low grade of bronchitis. In a considerable portion of cases blood will be found mixed with the sputa, or the patient may have a pure hæmoptysis. It is rarely the case, however, that the bronchial hemorrhage is profuse in this class of cases.

These are the important pulmonary symptoms which stand in direct relation to mitral lesions.

Now, with regard to the *pulse* as representing the condition of the heart. It is evident, when mitral obstruction is present, that the quantity of blood in the left ventricle is considerably under that present when the orifice is healthy; hence, it is easy to understand that the effect upon the pulse would be to make it small and feeble, because of the diminished amount of blood thrown forward into the arteries. Suppose we have mitral regurgitation, then a portion of blood is thrown back into the auricle which should be sent forward into the aorta, and the effect upon the circulation is the same as with mitral obstruction. We therefore have a weak pulse as representative of mitral lesion, whether that lesion be obstructive or regurgitant. If hypertrophy predominates over dilatation, a very striking contrast is afforded by comparison of the cardiac impulse, when the ear is placed over the præcordium, with the impulse given to the finger when placed on the radial artery. The impulse of the heart will be found stronger than in health, while the pulse is much weaker. With regard to the rhythm of the pulse, we find a marked difference in different cases. In some cases, with considerable organic lesion, we have a regular cardiac action and regular pulse. In other cases, however, we find the action of the heart to be irregular, both in kind and in degree, and such irregularities are not easy to explain.

In cases in which dilatation has taken place, and there is very considerable obstruction or regurgitation, or both, we may have these irregularities, and it is important that that fact should be borne in mind. If the heart be weak as regards the force of successive systoles, we may not find a pulse which represents every systole; that is to say, the systolic contraction of the left ventricle is sometimes strong enough to produce a pulse at the wrist, and sometimes not. If, therefore, we are guided by the pulse alone, without auscultating the heart, we may be led into error with regard to the frequency of the heart's contraction. Not unfrequently we find a pulse numbering no more than 80 or 90 to the minute, when by auscultating the heart, and counting the systoles, it will be found that they number as high as 100, or 110, or 120 to the minute. In cases, therefore, in which the heart is found weak, it is important to correct the pulse found at the wrist by results obtained by auscultating the heart. When we have dilatation of the right side of the heart, producing dropsy, there is also, as a matter of course, general venous congestion, which is especially apparent in the veins of the neck; they are increased in size, and usually are turgescent. Under these circumstances, we may have venous pulsation, more frequently observed upon the right than upon the left side of the neck, and such pulsation may be present with or without turgescence of the veins. It is rarely the case that pulsation of the jugular vein can be appreciated by the touch, but it is very apparent to the eye. It is also easy to determine whether the visible pulsation is venous or arterial; for, if we make slight pressure upon the vein just above the clavicle, sufficient to obstruct the flow of blood through the veins into the heart, if the pulsation is venous it will be suspended. It may be the vein lies so near the artery that you will imagine the visible pulsation is due to pulsation in the carotid; but the amount of pressure required to obliterate it is not nearly s

much as would be required to cut off the arterial circulation.

We may go still farther, and these are nice points in physical examination.

This pulsation may be produced by the contraction of the right ventricle causing a current of blood to be sent back into the right auricle and transmitting an impulse which becomes visible in the veins of the neck. There is one way in which venous pulsation is produced, and it is called the ventricular venous pulsation. How are you to determine whether it is produced in that manner? First fix the eye upon the pulsating vein, then place the finger upon the carotid artery of the opposite side, and then observe whether the two pulsations are synchronous. If synchronous, it is evidence that we have venous pulsation, produced by contraction of the right ventricle.

Again, the venous pulsation may be produced by contraction of the right auricle. How can you show that such is the case? It is done by the same method; that is, look at the pulsating vein, place the finger upon the carotid on the opposite side, and now, if the venous pulsation is auricular, it will *precede* the pulsation of the artery, because the contraction of the auricle precedes the contraction of the ventricle.

Again, we may have two venous pulsations for one arterial, and it is easy to determine that also. It is done by fixing the eye upon the pulsating vein and the finger upon the artery as before, and then determining by count whether we have for each carotid pulse a double venous pulsation. These are the prominent events, or symptomatic phenomena, which stand in relation to disease of the heart, involving mitral obstructive lesion or mitral regurgitant lesion, or both.

As regards the other anatomical systems of the body, the excretory, the digestive, etc., these may not be very materially affected; at all events, they do not give symptomatic phenomena which are distinctive of this event.

At our next lecture we shall pass to the consideration of the symptomatic phenomena following lesions at the aortic orifice; obstruction, or regurgitation, or both, and from those pass on to the study of enlargement of the heart.

Original Communications.

ARE HEMORRHOIDS SALUTARY?

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This question, although so apparently unreasonable and inconsistent, has, nevertheless, been made one of grave importance, and is by no means so easily solved as might at first be thought, especially when we consider the fact that on both the affirmative and the negative side of the question are found some of the ablest, most profound, and most distinguished men of the medical profession, both of ancient and of modern times. I therefore approach the subject with much diffidence, and in no spirit of dogmatism. The question is certainly one of sufficient importance, for good or for evil, as to entitle it to the candid consideration and thorough investigation of the enlightened medical profession of the present day. I can do but very little more, in this brief article, towards elucidating it, than to introduce or to present it fully and fairly to the profession by giving the ancient and the modern authorities *pro et con*, so far as my reading extends, and by quoting freely from the most distinguished of these. Being well aware that this attempt will be found imperfect, I nevertheless look forward with hope that it will prove a pioneer for a more efficient laborer.

From remote antiquity it has been an opinion among physicians, and consequently among the people, that hemorrhoids are salutary, especially those that bleed; that they prevent many diseases that would otherwise happen, and that they even contribute to good health and longevity. This erroneous and pernicious opinion is held by numerous physicians and people of the present day, and is, in my opinion, a source of incalculable mischief and suffering. The error consists in giving to hemorrhoids normal or physiological attributes, and was founded upon the absurd notion entertained and taught by the ancients, that they were emunctories by which the bile was evacuated, the acrimonious phlegm, and especially the atrabile. They believed that the hemorrhoidal discharge came from the turgid extremities of the hemorrhoidal veins; and from the connection of these veins with those of the liver, they believed that they were the media through which the morbid humors, or black bile, were eliminated. Hippocrates in several of his works plainly teaches that hemorrhoids perform the office or function of evacuating the black bile or melancholic humor. He says: "In profluvio hæmorrhoïdum velut quidam atribili affine effluit." (*De Morbis Vulgaribus Liber.*) Galen also (*De Atra Bile Libellus*), and the different authorities who succeeded Hippocrates, continued to maintain the same doctrine regarding the functions which he had ascribed to hemorrhoids. Indeed, this idea was general, and prevailed until after the circulation of the blood was more fully demonstrated by Harvey, when it was in a great measure dispelled. These ancient authorities believed that hemorrhoids were the means of eliminating the *materies morbi*, or through which the *semina morbi* might be evacuated and health restored; and when they were entirely suppressed, they were, upon the principle of metastasis, determined either to the liver and produced dropsy, to the lungs and produced phthisis, or to the head and produced apoplexy. Hippocrates speaks plainly of the antiphthisical effects of the hemorrhoidal discharge: "Qui sanguinem per ora venarum quæ sunt in ano, perfundere solent in neque lateris dolore, neque pulmonis inflammatione corripiuntur." (*De Humoribus Liber.*) He also says that, "In melancholic and nephritic affections, if hemorrhoids appear, they are beneficial." (*De Judicationibus Liber, cap. vi.*) The same language occurs in Aphorism xi., section 6. Hippocrates further says: "In maniacal affections, if varices or hemorrhoids come on, they remove the mania." (*Aphorism xxi., section 6.*) All authorities agree that the author, by the phrase *maniacal affections*, means *melancholy*. Again he says: "When a person has been cured of chronic hemorrhoids, unless one be left, there is danger of dropsy or phthisis supervening." (*Aphorism xii., section 6.*) The doctrine of this aphorism, however, does not agree with that taught in his "De Hæmorrhoidibus Liber," in which he says: "And make the irons red-hot and burn the pile until it be dried up, and so as that no part may be left behind. And burn so as to leave none of the hemorrhoids unburnt, for you should burn them all up. (*Genuine Works of Hippocrates. Translated by Adams. Vol. ii., p. 827. London*, 1849.) The graphic instruction here given, "to burn up all the hemorrhoids," is so diametrically opposed to that of the twelfth aphorism and to the plain and unmistakable sentiments of the several pass

ages I have quoted above, that this part of the book must be either an interpolation, or that the whole of it is spurious. Of this book the illustrious Haller says: "Although this is a spurious book, it is by no means a bad one." (*Hippocrates. Opera Omnia, Latine, ab Alberto Haller. Vol. iv., p.* 122. *Lausannæ*, 1775, *in* 8*vo.*) Whether this book is spurious or not, I nevertheless agree with Haller that it is not a bad one, especially that part of it which advises that all of the hemorrhoids should be destroyed, and not one be left.

I have thus shown that the Father of Medicine had the most implicit confidence in the preventive, preservative, and curative powers of the hemorrhoidal disease. Galen says: "Hemorrhoids have often prevented a commencing atrabilis, or have cured it when it was established, as well as they cure induration of the spleen. They also disperse varices, gouty affections, and articular pains." (Galeni. *Reliquum Sexti Commentarii in Sextum Hippocratis, De Morbis Vulgaribus Librum.*) Galen elsewhere says: "Those who are the subjects of hemorrhoids are much less subject to other diseases." (*De Venæsectione Adversus Erasistratum Liber, cap. v.*) Celsus considered the hemorrhoidal flux as a salutary evacuation rather than a disease. (*De Medicini, Lib. v., cap.* 18, *sec.* 9.)

Were it necessary, I could readily show that the doctrine of Hippocrates upon this subject was adopted by nearly all the ancients. I will now, however, show that the same doctrine, or a modified form of it, was subsequently adopted and further attested by the largest number of the moderns, such as: Plater (*Observationum in Homini, etc., lib. i., obs.* 1. *Basilæ*, 1641, *in* 8*vo*). Primrose (*De Vulgi Erroribus in Medicini. lib. iv., cap.* 51. *Roterod*, 1658, *in* 8*vo*). Vega (*De Arte Medendi, lib. ii., cap* 4. *Lugduni*, 1576. *folio*). Zacutus (*Praxis Medica Admirab., lib. ii., cap.* 6. *Lugduni*, 1657). Horstius (*Operum Medicarum, lib. ii., cap.* 7. *Norimbergæ*, 1660, *folio*). Stahl (*Dissertatio de Consultâ Utilitate Hæmorrhoidum. Helmstadii*, 1704. *Et Dissertatio de Hæmorrhoïdibus Von der Guldenen Ader. Halæ*, 1707). Alberti (*Dissertatio de Hæmorrhoïdibus Medicini Hypochondriacorum.* Et, *Dissertatio de Hæmorrhoïdibus Longævitatis Causa. Halæ*, 1756). Hoffmann (*Dissertatio de Salubritatem Fluxus Hæmorrhoïdalis. Halæ*, 1708.) Lævius (*Acta Naturæ Curiosorum. v. l. append. No.* 1. *Ann.* 1706). Ludolff et Breithaupt (*Dissertatio de Utilitate Fluxus Hæmorrhoïdalis præsertim adsueti positivam curationem prohibentis. Erfordiæ*, 1721). Ledelius (*Miscellanea Curiosa sive ephem. Acad. Natur Curiosor., decur. iii. Ann. v., obs.* 265). Valsalva (*Morgagni, De Sedibus et Causis Morborum, lib. iii., epist. xxviii., art.* 13. *Venetiis*, 1761, *folio*). The celebrated Richter cites the case of a lady who had a bleeding tumor of the right breast, which he refused to remove, believing it was caused by the suppression of the hemorrhoidal flux. He therefore prescribed remedies to restore the hemorrhoids, but with what effect is unfortunately not stated. (*Observationum Chirurgicarum, fasicul. iii., cap.* 4. *Gœttingæ*, 1770.) Heister observes that he had seen a man, who at first became hypochondriac in consequence of the suppression of hemorrhoids, was then tormented by other symptoms which terminated in pain of the head (*Clavus*). (*Acta Naturæ Curiosorum, lib. v., observ.* 161.) Roupbach (*Dissertatio de Clavo Hæmorrhoïdali. Helmstadii*, 1734).

Almost every species of alienation has been by some attributed to the suppression of the hemorrhoidal flux. M. Esquiral says that melancholia and dementia are the most frequent (*Des Maladies Mentales, considérées sous les Rapports Médical, Hygiénique, et Médico-Légal. Paris*, 1838). Larrouque (*Traité des Hémorroïdes. Paris*, 1812). Lacoste (*Essai sur les Tumeurs Hémorroïdales. Paris*, 1812).

Many of the authorities I have cited record numerous cases to illustrate their views as to the therapeutic value or salutary power of the hemorrhoidal flux to cure or to prevent disease, to promote continued good health, and to ensure long life. These isolated cases are all of a similar character, and do not bear close scrutiny. They only tend to prove the exception to a rule. The following is a case in point: The celebrated Professor Richeraud cites the case of a merchant who had arrived at the age of eighty-nine years, who attributed the continued good health he enjoyed to a hemorrhoidal flux which had existed for more than fifty years. So regular and so considerable was the flow, that whenever he evacuated his bowels the blood would spout out from the anus for a certain distance, as from a vein opened by a lancet. (*Nosographie Chirurgicale, tome, iv., Art. Lésions Vitales des Artères Capillaires. Paris*, 1812.) Now, the question is, was it really in consequence of this continuous daily waste of blood for fifty years that enabled this man to enjoy such good health, and to have attained to the great age of eighty-nine years? Or was it not rather owing to his naturally good and robust constitution, his great tenacity of life, and the extraordinary power of nature to restore so rapidly this daily loss of the vital fluid, which, under such continued depressing influences, preserved his life for so many years. Then how disingenuous, how illogical it is to select such an isolated case to prove that the daily continued loss of blood from the rectum is essential to good health and long life. Had this merchant followed the advice of Ætius, by having the hemorrhage gradually arrested, and at the same time observing proper diet, exercise, and an occasional purgative, he might soon have overcome this worse than evil habit, and might have attained to the age of one hundred years. We sometimes hear it said that such and such an inebriate always had good health, and attained to an extraordinary age, although for many years he was daily under the influence of the intoxicating draught. Who, I ask, would select such a case to prove that intemperance in the use of alcohol tended to good health and long life? Some persons attain great age under the most adverse circumstances and evil influences. These are the exception, not the rule.

Now, with regard to the hemorrhoidal flux, the celebrated Stahl was of opinion that it should never be accounted excessive except when it occasioned great debility or leucophlegmatia. (*Op. cit.*) Cullen, on the contrary, was of opinion that the smallest approach towards producing either of these effects should be considered as an excess, which ought to be prevented going any further; and even in the cases of congestion and plethora, if the plethoric habit and tendency can be obviated and removed, the flux may then with safety be suppressed. (*Lectures on the Practice of Physic, vol. i., pp.* 485–932. *Edinburgh*, 1812.) Riverius regarded hemorrhoids as a great evil. He says: "The immoderate hemorrhoidal flux is most dangerous, and brings on other pernicious diseases, as weakness of the whole body; coldness of the bowels, and especially of the liver; an atrophy or want of nourishment; an evil habit and dropsy by the loss of natural heat; by the spending too much blood, which is the treasure of life and the cherisher of the whole body." (*Praxis Medica, lib. x., cap.* 10. *Lugduni*, 1657, *folio.*) Galen says: "Natura evacuationi per hæmorrhoïdes non adsue facienda est, quiâ facilé ex-

cedit et hydropem in excessu succedendo procreat." (*De Facultatibus Naturalibus, lib. iii., cap.* 8.) Ætius also remarks: "Multorum malorum causa sunt hæmorrhoïdes, deformitatem, miseram vitam inducunt, et multos vitâ privant." (*Medici Græci contracta ex veteribus Medicinæ Tetrabiblos, hoc est Quaternio. Tetrab. iv., sermo.* 2, *cap.* 5. *Basileæ*, 1542, *folio.*) Ætius again observes that the danger of the suppression of the hemorrhoidal flux in plethoric habits may be prevented by the patient observing proper diet, exercise, and occasionally purging and bleeding. (*Op. cit.*) Klein says that when hemorrhoids have not caused children to perish before puberty, they often become fatal at that period (*Interpres Clinicus, Hæmorr. Francofortiæ*, 1759.)

Notwithstanding the doctrine that hemorrhoids served to evacuate black bile, as held by the ancients, has long since been exploded, yet the moderns of the German and French schools continued to advocate a modified, more plausible, yet equally absurd theory. This theory, still a little more modified, is held by these schools at the present day. To show the estimation in which the hemorrhoidal disease was, and is even now, held by the Germans, it is only necessary to give some of the popular appellations which they have applied to it, and by which it is designated by them—such as "Der Güldene Flug," "Fluxus Aureus," "Flux d'or" or "Flux Doré;" or rather, "Die Güldene Ader," etc. These popular names of this affection, given by the Germans, indicate the great benefit they conceive to be obtained from it, and how *precious*, like gold, it is. We thus see that they worship hemorrhoids as a *panacea*, for there is not an ailment to which poor human flesh is heir, that this universal remedy, in their estimation, will not cure or prevent. Then what a blessing it is to have piles, and how unfortunate it is to be without them, or to have them cured, when they exist! The Germans may therefore, with great propriety, be considered to be the cultivators of the hemorrhoidal disease.

The French, however, are by no means behind the Germans in their laudations of the hemorrhoidal disease, for one of their ablest and best writers on this disease, the late and lamented M. De Montègre, says that "the hemorrhoidal affection might be useful to a great number of men, and that to become subject to it would for them be a fortunate event." (*Des Hémorroïdes, ou Traité Analytique de Toutes les Affections Hémorroïdales, p.* 127. *Paris*, 1830.)

Are hemorrhoids a disease? It remained for M. De Montègre, the author of the able and profound work just cited, to present in the 19th century the old theory that hemorrhoids are salutary, etc., in an entirely new and fascinating dress. This he does by boldly declaring that the hemorrhoidal fluxion before complications take place is no disease at all, and that it is analogous to the menstrual flux, thus making it purely physiological instead of pathological. He therefore, in order to avoid the absurdity of calling hemorrhoids a disease, and at the same time considering them healthy, says they are not a disease, but an affection. He declares the hemorrhoidal fluxion to be a vital act, to which the name *disease* is inapplicable, for not only does it not prevent or impede the exercise of any function, but on the contrary, without causing pain or notable inconvenience, it insures in a measure the preservation of the health; and in this respect it is in every sense comparable to the menstrual fluxion. "To designate this condition I will therefore," says De Montègre, "continue to make use of the word *affection*, equivalent to *manner of being*. I shall reserve the name *disease* for the cases which are aggravated by complications." (*Op. cit.*, p. 16.) In another place M. Montègre says: "In fact, the hemorrhoidal fluxion, or the ensemble of the movements by which nature produces a sanguineous fluxion at the extremity of the rectum, cannot be called a disease." (*Op. cit.*, p. 18.)

To treat M. De Montègre fairly and do him full justice, I will give his own language to the reader. He says: "Dans cet état, la fluxion hémorroïdale est un acte vital auquel ne saurait convenir le nom de maladie, car non-seulement il n'empêche ou ne gêne l'exercice d'aucune fonction, mais au contaire, sans causer de douleur ni d'incommodité notable, il assure en quelque sorte la conservation de la santé; tout à fait comparable, sous ce rapport, à la fluxion menstruelle des personnes du sexe féminin. Pour désigner donc cet état, je continuerai à me sevir du mot *affection*, équivalant à *manière d'être*. Je réserverai le nom de maladie pour les cas qui se trouvent aggravés par des complications" (p. 16). Again he says: "En effet, la fluxion hémorroïdale, ou l'ensemble des mouvemens par lesquels la nature produit sur l'extrémité du rectum une fluxion sanguine, ne saurait être appelée une maladie" (p. 118).

Now, as it respects the sanguine fluxion to the vessels at the end of the rectum in hemorrhoids, which is the first manifestation or pathognomonic sign of the disease, and which is always passive, not active—always pathological, not physiological. I deny that it is a vital act, like the fluxion to the uterus, to which M. De Montègre compares it; but on the contrary, it is an abnormal, a morbid, or a pathological act, somewhat similar to that which takes place to the vessels of the legs, and which results in the disease called varicose veins of the legs, being remarkably like it in character. The hemorrhoidal fluxion cannot, therefore, in this respect, be compared to the menstrual fluxion, which is in every sense a vital, a normal, or a physiological act. This seems so obvious that it only needs to be stated. The idea, too, which many entertain, that the hemorrhoidal discharge and the catamenia are analogous, is absurd, for the bleeding from hemorrhoids is a hemorrhage of blood which coagulates, whereas the healthy catamenial discharge consists of the secretion of a fluid which never coagulates, and which has neither the color of arterial nor of venous blood; and in odor, too, it is remarkably distinct from that of blood, and is also very much less disposed to decomposition or putrefaction.

M. De Montègre, in endeavoring to establish his favorite hypothesis that the hemorrhoidal fluxion is physiological and not a disease, uses the term *affection* in a certain sense to designate it, thus making a wide distinction between the terms *disease* and *affection*. But this use of the term *affection* in this instance is neither sanctioned by common acceptation nor by etymology. All agree that in medical language the terms *affection* and *disease* are synonymous. He reserves the term *disease* for the aggravated complications which sometimes follow the hemorrhoidal fluxion, such as excessive hemorrhage, irritated, inflamed, or prolapsed tumors, etc. Now, with regard to hemorrhage, I would remark that it is never a disease, but the symptom merely of disease, sometimes of disease of the part from which it takes place, at other times from that of disease in remote organs. In hemorrhoids, bleeding is often absent, and when it does occur it is passive, and is a symptom merely of the disease. This disease is generally ushered in by a peculiar stinging or pricking sensation at the anus, accompanied by an uneasy and painful sense of weight, fulness, and tension about the sacrum and extremity of the rectum, often extending to the perineum and sympathetically

affecting the sensibility of the bladder, urethra, etc. These symptoms are frequently much aggravated by the pressure of the anal sphincters upon the already turgid and irritable vessels of the parts; attended often by more or less fever, with hot skin, hard pulse, and dry mouth. All these morbid manifestations may take place at the very beginning of the attack, solely in consequence of the sanguineous fluxion, and before any of the complications have taken place of which M. De Montègre has spoken, before there is the slightest effusion of blood, or the formation of organized tumors. I would now ask, how can this preternatural fluxion of blood or serum to the vessels at the end of the rectum take place without more or less affecting or disturbing the functions and the health of the organ, as well as of the whole body? Indeed, the distention of the highly delicate and sensitive vessels of the part, by any undue quantity of blood or serum, cannot for a moment occur without the patient at once experiencing, at the very beginning of the attack, many, if not all of the symptoms above enumerated Now, if this is not disease, I ask, what is disease? *Dis-ease*, a separation from, or a deprivation of ease; or an interruption of ease, or of the functions of the body. *Affection* (from the Latin, *affectio*, disease), Cooper says, means any existing disorder of the whole body; and by adding a descriptive epithet to the term *affection*, most diseases may be expressed. Hence we may say, *pulmonary affection, calculous affection, cutaneous affection, febrile affection* (hemorrhoidal affection, if you please), using the word *affection* synonymously with *disease*. (*Lexicon Medicum, vol. i., p.* 33. *New York*, 1833.)

M. De Montègre throughout his work plainly teaches that the hemorrhoidal fluxion is not a disease, but an affection. Galen, who was always very precise in defining his terms, says, when on the subject of the pulse, that he is about to treat of those pulses that are peculiar to affections (*affectionibus*) or diseases; and calls that an affection which is preternatural (*prater naturam*). (*De Præsagatione ex Pulsibus, lib. iii.*) Hemorrhoids, from their very nature, are a disease, as much so as are varicose veins of the legs. Their origin, subsequent development, and structure, prove it. The disease consists of a preternatural fulness, or decided turgescence of one or more of the vessels of the inferior extremity of the rectum, occurring at uncertain intervals, and is the first manifestation of a morbid action in them—provoked either in immediate or in remote parts—the primary cause of which it is often impossible to ascertain; hence, it may or may never be discoverable. This vascular turgidity is either the result of an increased afflux of the fluids attracted from the neighboring parts to these vessels, or it is owing to a morbidly relaxed condition of them, by which their capacity is greatly increased, and by which larger currents are permitted to pass into their cavity than normal; the fluids being solely attracted from their natural channel to these morbid vessels by the vacuum occasioned by their enlarged calibre. The natural consequence, therefore, of this morbid dilatation of these vessels, is that the circulation in them is retarded and sluggish, they having to a certain extent lost their contractile power; hence, the fluids are more or less delayed and permitted to accumulate and to distend them. If this vascular fulness or hyperæmia does not soon disappear spontaneously, or is removed by treatment, it sooner or later terminates in congestion, attended by inflammation, with a serous or semi-plastic extravasation, and subsequent infiltration into the surrounding tissues, thus laying the foundation of regular organized tumors. This affection, therefore, is, from first to last, a disease of the hemorrhoidal vessels, the arterial capillary system being principally involved. It can, therefore, with great propriety be called the *hemorrhoidal disease*.

Is it not surprising that hemorrhoids, which are so obviously a deviation from health, should by any one be considered and denominated healthy, or declared to be no disease at all? Yet many such are found, some of whom have even written volumes to prove it. But, I ask, does it sound well in reason's ear, or does it seem fit and proper in the light of common sense, to call any disease healthy, or to style it a healthy process? It can be readily understood why venesection, as a therapeutic remedy, is sometimes salutary; why calomel, rhubarb, ipecac, or opium, is salutary; for, in the administration of any of these remedies, the inference or presumption is that there exists a morbid or diseased condition of body, which requires to be relieved or removed by it.

Hemorrhoids are often the result of other diseases, such as chronic affections of the liver, phthisis pulmonalis, etc. In all such cases how absurd is the idea that they are salutary, and should not be interfered with because they tend to relieve the primary affection—the diseased organ—as a derivative remedy, nature having established them for that very purpose. Now, in my opinion, if hemorrhoids are the only hope, the only resource, the only remedy of the physician to ward off or to cure the primary disease, then indeed is the case hopeless. The primary disease as well as the hemorrhoids, the effect of it, should both be treated at the same time, for the removal of the effect will by no means remove the cause, the primary disease; and it is not the removal of the effect which produces fatal consequences, but the non-removal of the primary disease itself which results fatally. It is remarkable that the enthusiastic advocates of this theory do not, in imitation of nature, make efforts to induce hemorrhoids as a derivative remedy in cases in which they do not already exist, inasmuch as this achievement is by no means difficult to accomplish; yet we scarcely ever hear of it being done when, according to their own theory, it is of the utmost importance.

A frequent objection urged against the removal of hemorrhoids is that some patients after such operation lose their health, and sometimes die; and this circumstance alone is taken for granted as sufficient evidence that the disease had a salutary effect. Now, before such an inference can be drawn or be made available, it must first be positively shown or made known whether the frequency of the fact is such as to justify the conclusion; for no one supposes that the removal of hemorrhoids entirely exempts the patient from the effects of disease and illness ever afterwards, and no one will deny that the removal of hemorrhoids frequently leads to great improvement of the health, or that it confers substantial good. I have often heard physicians say that they regarded hemorrhoids as healthy, or that they depended upon plethora, and were, therefore, safe in warding off worse evils. In my opinion, they essentially never depend upon fulness of blood, for it is well known that they generally occur in persons of a different habit of body. The existence of hemorrhoids is no more an evidence of plethora than that of varicose veins of the legs. If one is considered healthy, or a healthy process, so should the other be. This doctrine is a serious, if not a fatal fallacy, for it leads to the entire neglect of the disease at an early stage, when it might be successfully managed and worse evils really prevented.

The fears then which are so generally entertained by so many, on the supposition that hemorrhoids are a

salutary outlet, indispensable to the constitution, and that other diseases and infirmities would be incurred by their removal, are, in my opinion, entirely erroneous and without foundation. How wrong and how absurd it therefore is to persuade the hemorrhoidal patient that his often dangerous, painful, and always disgusting infirmity is a salutary emunctory, and the very guaranty of his health!

From what has been said in favor of treating hemorrhoids as a disease, it must not be understood that the treatment, either medically or surgically, should be attempted indiscriminately, as there are sometimes conditions which contraindicate treatment; these, of course, cannot be pointed out in this brief article. There are many precautions which a prudent surgeon will observe before operating in this, as in any other case.

I will conclude by adding the following important authorities still pertaining to this seemingly inexhaustible subject, as the article would not be complete without them:

Triller (*Dissertatio de Hæmorrhoïdum Fluxu nunc Salutari nunc Noxio. Viteb.*, 1764). De Oberkamp (*Dissertatio Fallax Hæmorrhoïdum Utilitas. Heidelburga*, 1781). Richter (*Censura nimiæ laudis Hæmorrhoïdum. Gœttingæ*, 1744). Peschel (*Epistol. de Hæmorrhoïdum laude circumcidenda. Lipsiæ*, 1713). Metzer (*De Hæmorrhoïdum statu sano et præter naturam. Tubingæ*, 1677). Perpessa (*Dissertatio de Hæmorrhoïdum Utilitate et Noxâ. Tolosæ*, 1705). Berger (Et Vater. *Dissertatio de Hæmorrhoïdum Fluxu Salutari et Morboso. Vitemb.*, 1717). Eyselius (*Dissertatio de Hæmorrhoïdibus secundum et præter naturam. Erfurtiæ*, 1702). Dupré (*Dissertatio de magno fluxus Hæmorrhoïdalis remedio ad vitam longam. Erfordiæ*, 1726). Draud (*Dissertatio de cohibendis potius quam Promovendis Hæmorrhoïdibus. Argentorati*, 1749, *in 4to*). Juncker (*Dissertatio cur fluxus Hæmorrhoïdalis in laboriosis plerumque fit lethalis. Halæ*, 1749). Zuccarini (*De Hæmorrhoïdum cum fluxu catameniali non comparanda salubritate. Heidelburga*, 1793). Grap (*Dissertatio de Fluxu Hæmorrhoïdali periodico in arthriticis affectibus beneficio naturæ et medicina sine medico. Regiomanti*, 1752). Rosenblad (*Dissertatio Laude Hæmorrhoïdum Restringenda. Lugduni*, 1771, et *Dissertatio de Hæmorrhoïdibus provocandis. Lugduni*, 1777). Jausson et Goelicke (*Dissertatio de Hæmorrhoïdibus turbatis. Francofurti, ad Viadnum*, 1723). Ludolff (*Dissertatio de fine Hæmorrhoïdum, principio variorum-malorum. Erfordiæ*, 1725). Grumbrecht et Segner (*Dissertatio de morbis ex interceptis Hæmorrhoïdibus. Gœttingæ*, 1741). Brendel et Wolff (*Dissertatio de Hæmorrhoïdibus interceptis morbis verendorum aphrodisiacos naturalium simulantibus. Gœttingæ*, 1747). Stohl et Deville (*Dissertatio de dubia atque suspecta Hæmorrhoïdum laude. Erfordiæ*, 1733). Woyt (*De Hæmorrhoïdum salubri et insalubri Promotione. Halæ et Magdburgæ*, 1753, *in 4to*).

It will be seen from the numerous authors I have cited, that while some consider hemorrhoids to be salutary, others declare them to be noxious, and others, again, that they are both salubrious and insalubrious, and some even that they are no disease at all.

249 Madison Avenue, New York, August 20, 1877.

Dialyzed Iron.—Dialyzed iron is becoming very popular in this city. As usual in such cases, several preparations have appeared, which are not dialyzed, and consequently give the unpleasant taste and effect of the ordinary preparations of iron. Dialyzed iron should have no taste.

Reports of Hospitals.

WORKHOUSE HOSPITAL, BLACKWELL'S ISLAND, NEW YORK.

RECOVERY OF A CASE OF TETANUS TREATED BY CALABAR BEAN AND CHLORAL HYDRATE.

By S. J. Holmes, M.D.,
HOUSE PHYSICIAN.

I submit the following notes of a case of tetanus, which, interesting to me in its somewhat varying history, may prove such to the readers of the Medical Record.

Lizzie M., aged 30, born in Ireland, single, of intemperate habits, was admitted to hospital July 17th. Patient, while intoxicated, attempted to step from a street car while in motion, producing a compound comminuted fracture of left ring finger, midway between second phalangeal and metacarpophalangian joints. The wound, lacerated, with considerable loss of tissue, exposed the tendon of the flexor sublimus digitorum, and the digital branch of the ulnar nerve. Dr. C., then acting physician to the hospital, decided upon an attempt to save the finger, and resorted to cold applications continuously applied to combat existing inflammation.

I saw the patient upon my return, ten days after admission, and found the wound freely suppurating, with no attempt at union of the bone, and giving little promise of anything but loss of the member. It was extremely painful, intercepting the patient's sleep both night and day, notwithstanding free doses of opiates and chloral were given. The patient's physical condition was, however, good, and no nervous debility obtained. I ordered the wound cleansed three times per day with carbolic acid (5 per cent. sol.) in water, and applied to the wound oakum saturated in oil and carbolic acid, the whole supported by a light splint. Gave the patient chloral hydrate, grs. xv., and morphia sulph., gr. ss. each night, but found upon the following morning that she had passed a painful, sleepless night.

July 31st.—8.30 A.M. Was startled by the nurse reporting as follows: Patient very nervous, with pain (lancinating in character) referred to region of both maxillæ, and stiffness, with lessened mobility of lower jaw. While the decreased movement was apparent, it was still but slight. Ordered chloral hydrate, grs. viiss. every three hours throughout the day, with grs. xv. at 10 P.M. to produce quiet and sleep.

Aug. 1st.—8.30 A.M. Patient slept but little, feels weak and uneasy, pulse 95. Temperature slightly increased, complains of cramps and pains extending from the face to neck and muscles of respiration. Jaws more rigid. Gave chloroform inhalations, a turpentine enema, and chloral hydrate as upon previous day, with opiates to control pain.

Aug. 2d.—7.30 A.M. No sleep last night. Received word that the patient was convulsed, but upon reaching her found her crying with pain (general), and all convulsion subsided, it lasting but a few seconds. The description as given by nurse was that of tetanic type, with marked episthotonus. The jaws were closely approximated, very rigid, and general pains throughout the back, legs, neck, and face. Intellect clear.

Ordered a prescription of calabar bean as follows:

℞. Ext. calabar bean..... gr. xij.
Alcohol..... ℥iij.
M.

℥i. to be given every three hours, with beef tea

milk, and whiskey, liberally throughout the day. 12.30 A.M.—Pulse 95. Temperature still increased, patient sweating and very weak, but intellect clear.

Decided to amputate, which I did, removing about one-third of the metacarpal bone. After reaction was established, ordered morphine, gr. ¼. every three hours until grs. ¾ had been given, still continuing the calabar bean. Patient suffered great pain up to 3 A.M., opiates seeming to take no effect; then gave a hypodermic of morphine, gr. ½, with transient relief. 9.30 A.M.—No more convulsions during the day; ordered chloral hydrate, grs. xv.

Aug. 3d.—10.30 A.M. Patient slept but poorly. No change. Weak and subject to general shooting pains. Back sore and stiff, legs cramped, pupils contracted. Calabar bean with same frequency; morphine to relieve pain. 10 P.M.—Chloral, gr. xv. 3 A.M.—Morphine, gr. ¼.

Aug. 4th.—Patient slept about one hour. Pulse 140, temperature 103. Jaws rigid, muscles sore, with persistent lancinating pains confined to neck and face. Patient can take nothing but liquid diet. Calabar bean continued, with stimulants (to counteract depressing effects of the calabar bean.) 12.30 A.M.—Morphine, gr. ½, hypodermically. 2 P.M.—Easier. 10 P.M.—Chloral, gr. xv. 3 A.M.—Morphine, gr. ¼. Calabar bean every two hours.

Aug. 5th.—7.30 A.M. Slept well, and feels refreshed. No change in muscles of mastication. Pulse 102, temperature normal. Back sore and stiff, with shooting pains. 10.30 P.M.—Patient suffering great pain. Pulse 94. Jaws somewhat more closely approximated. Calabar bean, gr. ss.; sol. morphine, U. S., ʒ ij. 12 P.M.—Chloral, gr. xv.; 3 A.M., grs. vijss.

Aug. 6th.—10.30 A.M. Rest broken and but short intervals of sleep obtained. Patient, however, says she feels better. Muscles less stiff and rigid, and great extenuation of pain. 10.15 A.M.—Suffering no pain, but restless and uneasy. Ordered chloral, gr. xv., and calabar bean, gr. ss. every three hours.

Aug. 7th.—Patient much improved. Slept well, but still unable to take solid food. The muscles of the face undergo slight spasms in attempts at speaking. All pain in the back, legs, and muscles of respiration subsided. Calabar bean continued.

Aug. 8th.—Patient about the same. Chloral and morphine discontinued. Calabar bean kept up.

Aug. 9th.—Sleeps well, and improving.

Aug. 10th.—Patient sitting up. Takes small quantities of solid food. No pain, and feeling very comfortable. Much stronger. Calabar bean discontinued.

Remarks.—The peculiarities of the case are: the length of time elapsing after receipt of the injury to the invasion of the disease; the chronicity of partial tetanus, and the occurrence of but a single general spasm, with threatening symptoms thereof throughout the whole history of the case, giving assurance of the implication of the whole spinal motor system of nerves. While the doses of calabar bean were at no time during its administration large, they were sufficiently so to impress the system (as indicated by the contracted pupil) and to keep in abeyance general spasm.

A Writing-Machine for the Blind.—M. Recordon, Geneva, has invented a machine by which blind people can write at once in characters meant for their blind brethren and in ordinary letters legible with the eyes. A writer in a Paris paper says that he saw it in operation, and a few phrases which he himself wrote with it, without any preparatory study, were deciphered immediately with surprising rapidity.

Progress of Medical Science.

Changes in the Medulla Oblongata and Spinal Cord in Hydrophobia.—At a recent meeting of the *Pathological Society of London*, Dr. Gowers showed a number of microscopical sections of the medulla and cord from four cases of hydrophobia. In all four cases the vessels of the gray matter were greatly distended, the distention being greatest in the medulla, near the gray nuclei in the lowest part of the fourth ventricle. In three of the cases the larger veins in this position presented aggregations of small cells within the perivascular lymphatic sheaths, sometimes in a single layer, sometimes densely packed so as to compress the vessels. In a few places these cells extend beyond the limits of the sheath. Similar cells were scattered through the tissue among the nerve-elements, and in some places, chiefly in and near the hypoglossal nuclei, there were dense collections of these cells, constituting in fact "miliary abscesses." Adjacent to many vessels were areas of granular degeneration. In two of the cases many of the larger vessels, chiefly veins, contained clots, parts of which were evidently of ante-mortem formation. In one specimen the inner coat of a vein was thickened opposite the older part of a clot, and there were round cells in the perivascular sheath, within the old clot, and in the substance of the swollen inner coat. The nerve-cells presented comparatively slight changes, being merely slightly swollen and in some places granular, and surrounded here and there by granular degeneration. These changes were most intense in and about the pneumogastric, hypoglossal, and glossopharyngeal nuclei; slighter in the nuclei of the auditory, facial, and fifth nerves, and in the cord; and slighter still in the upper part of the pons. Dr. Gowers concluded by alluding to the difficult question, as to whether these vascular changes were the initial lesion in the nerve-centres, or were secondary to the irritation of the nerve-elements by the blood-poison. It was certain that embolism played no part in the process. The coagulation in the vessels was not essential, while in one case the absence of cell-infiltration showed that dilatation might be the only morbid change in the vessels. On the other hand, the changes in some of the clots, in cases in which the symptoms had lasted only three days, showed that considerable vascular changes must have occurred very early in the disease.—*The Lancet*, June 9th.

On the Development of Giant Cells, and their Presence in Ivory Pegs used in the Treatment of Pseudarthrosis.—In March of this year, Dr. Aufrecht, of Magdeburg, received three ivory pegs that had been used in the treatment of a pseudarthrosis of the leg in a young man. The pegs, when driven into the bone, were each $1\frac{4}{5}$ in. in length, and they had been left in situ respectively, one, two, and three weeks. Even microscopical examination revealed no change in the surface of the first. The second presented a rather deep, circular depression at the junction of the upper and middle thirds, and from thence to the point it was rough and eroded. Part of the circular depression was filled with a grayish white mass of tissue. The third peg was broken in the removal, the larger portion being left in the bone. The piece removed measured half an inch, and its fractured end was rough and eroded. On microscopical examination the most perfect giant cells were found in the circular depression on the second peg

and on the surface of the peg from thence to the point, and also on the fractured end of the third peg. The cells lay singly or in groups, in lacunæ that resembled very closely the spaces met with in the ossifying border of cartilage. At the under part of the second peg smaller and shallower depressions were found, which resembled bone corpuscles in every respect, except that the processes extending from them were less numerous. No cellular bodies were found in these depressions, perhaps because attention was not called to them until long after the peg had been received. Dr. Aufrecht regarded the depressions as the first effects of the process of resorption.

From his previous studies on giant cells in miliary tubercles, and the results of the examination of these pegs, he believes himself justified in drawing the following conclusions:

1. The giant cell originates exclusively by the confluence of the protoplasm of the cells called fibroblasts by Ziegler, *i. e.*, of the round, oval, spindle-shaped, or stellate cells, with sharply defined, usually oval nuclei, and one or more nucleoli, from which, under other circumstances in pathological connective tissue growths, the connective tissue fibres are developed. The number of nuclei in the giant cells is not greater than the number of nuclei contained in the original fibroblasts. He has never been able to find any evidence of an endogenous proliferation of nuclei in the giant cell.

2. The giant cell is met with where there is some obstacle to the change of the fibroblasts into connective tissue, or where the capacity of the cell for this new development is lessened. The giant cell that is developed in the neighborhood of foreign bodies, the irritation of which is not sufficient to excite suppuration, is an instance of the former; the giant cell of sarcoma of the latter.

3. The giant cell, in common with other cells, can bring about resorption of bone, as it brought about the destruction of the ivory pegs in the above-mentioned case. It is probable that an accumulation of carbonic acid accompanies the formation of giant cells. Now, Tillmanns has proved that carbonic acid will dissolve the lime salts of ivory, and hence the resorption of the organic substance would be the task set for the giant cell.

4. The club-shaped, closed ends of newly formed vessels, which are formed by the union of cells, that are identical with fibroblasts, may be mistaken for giant cells, when their connection with the vascular system is concealed by overlying connective tissue, etc.

Dr. Weiss, who has also been investigating the subject of giant cells, has come to the same conclusion as Dr. Aufrecht, viz., that the giant cell is formed by the confluence of several smaller cells. He introduced hairs and cotton threads into the subcutaneous tissue of dogs and pigeons, and after fifteen to forty-five days cut them out with some of the tissue around them. He frequently found the foreign body in the inside of a giant cell. The cells which form the giant cell are granulation cells; irritated by the foreign body, they increase in size, become more spherical, present three or four nuclei, unite together, and gradually assume a homogeneous appearance.

Unlike Dr. Aufrecht, Dr. Weiss denies that the giant cells can be developed into blood-vessels; he states that they always finally undergo a fatty degeneration. —*Centralblatt f. Med. Wissen.*, June 30th, and *Centralblatt f. Chirurgie*, July 7th.

A Hitherto Unnoticed Sign of Immaturity of the New-born Child.—All obstetricians are familiar with the white points which stud the tip of the nose of every new-born child. They are due to dilatation of the excretory ducts of the sebaceous follicles, and are best described as white comedones. In the course of some anatomical examinations of the sebaceous follicles in the face of the new-born child and of the embryo near term, Dr. Küstner, of Halle, had his attention called to the fact that similar white points are in many cases found on the alæ of the nose, the cheeks, the forehead, and especially on the chin and underlip. These are also due to distention of the follicles by plugs of sebum, but they differ from those constantly found on the nose, and are better described as milium. He has found that they are abundant in proportion to the immaturity of the fœtus, and decrease in number as full term approaches, so that only the comedones on the tip of the nose are found in the child carried to full term. He has examined twenty-nine premature children, and seventy that were born at the proper time. The former always presented other signs of immaturity as well as the milium, viz., abundant lanugo, small size and weight, etc.—*Centralblatt f. Gynäkologie*, July 21st.

Treatment of Suppurative Osteo-myelitis.—Dr. Eug. Boeckel states that he regards an elevation of temperature, persisting after free division of the periosteum, as the surest sign of the existence of acute osteomyelitis. In the treatment of the affection, he recommends the use of the trephine and hollowing out of the bone. He claims that osteo-myelitis is more common after the amputations than is usually believed, and that whenever a chill or an unusual elevation of temperature sets in after an amputation, the surgeon should bear in mind the possibility of the existence of suppuration of the bone. It should be examined with care, and if necessary, any newly formed adhesions between the lips of the wound should be broken up, so as to permit of a free inspection of the marrow of the bone. If this be infiltrated with pus and diffluent for some distance, and if at the same time periosteal phlegmons exist, it is necessary to act promptly and energetically. In the milder cases it is sufficient to empty the medullary canal by means of a gouge, and to keep up a continuous carbolated irrigation of the cavity. In severer cases the trephine should be applied at one or more spots, according to the extent of bone involved. He believes that the osteomyelitis, instead of being secondary and the result of a pyæmia, is in reality the source of the infection of the blood.—*Annales et Bulletin de Gand*, June, 1877.

Subcutaneous Injection of Defibrinated Blood. —Dr. Schmeltz, of Schlestadt, reports a case of consumption with great weakness and intense anemia, in which the subcutaneous injection of defibrinated blood was followed by the most satisfactory results. The patient was first seen by Dr. Schmeltz in March, 1874; he was then over sixty years of age, had been sick for a long time, and was confined constantly to his bed, in consequence of his extreme weakness. He was reduced almost to a skeleton, and almost all over his lungs there were dulness, bronchial breathing and moist râles. He had hectic, and suffered from various neuralgias, from frequent attacks of syncope, and from dyspnœa. His stomach soon became weak, and neither food nor medicines could be retained. Dr. Schmeltz then determined to try subcutaneous injections of defibrinated blood, which had been first recommended by Dr. Karst, of Kreuznach. The blood used was taken by wet cups from the back of the patient's son, and was carefully defibrinated. Eight injections of five grammes each were made into the arms and legs at one sitting, consequently forty gram-

mes (ten and a quarter drachms) in all were injected. The swellings caused by the injections had disappeared at the end of the second day. The operation was followed by a very rapid improvement in the general condition of the patient. His appetite returned; the pulse became full and firm, and 80 per minute; the neuralgias, anxiety, palpitations, and extreme weakness were relieved, and he was able to sleep. Eight days after the operation he got up, and convalescence was thenceforth uninterrupted. The patient is still living and in good health; during the last two years he has required no medical treatment.

Dr. Schmeltz thinks that this case proves that the hypodermic injection of blood may prove useful in many cases where transfusion is indicated, especially in cases of anemia in which the stomach rejects all nourishment and medicine.—*Annales et Bulletin de Gand*, June, 1877.

Treatment of Blennorrhagic Epididymitis with Iodoform Ointment.—Dr. Alvares, of Palma (Majorca), has treated four cases of epididymitis with iodoform ointment, and from his experience in these cases draws the following conclusions:

1. Iodoform calms the pain of blennorrhagic orchitis better than any other application; this result is obtained at the end of one or two hours.

2. Iodoform exerts a very manifest resolvent action, and has the advantage over the usually employed mercurial ointment, of causing no trouble when absorbed.

3. The iodoform treatment shortens very appreciably the duration of the orchitis, and prevents any consecutive induration of the organ.

4. It is necessary to employ an ointment containing, according to the intensity of the inflammation, from one to two grammes of iodoform to thirty grammes of lard.—*Le Bordeaux Médical*, June 26th.

The Morbid Anatomy of Tubercular Testicle.—Dr. Gaule has subjected sixteen cases of tubercular testicle to a careful anatomical investigation, and found that the pathological process consisted in a catarrh with special tendency to caseous degeneration and ulceration. The affection began in the epididymis, and spread from the epithelium to the walls of the tubes and the surrounding interstitial tissue. It extended, sometimes more within the tube, sometimes more in the interstitial tissue, first to the corpus Highmori, then to the septa testis, and finally to the convoluted tubules. It advanced with diminishing intensity towards the periphery of the testicle, either in a solid phalanx, or in disseminated masses, according to the number of tubules affected. In the latter case, fibrous nodules were often developed, which have been hitherto regarded as tubercles, but which Dr. Gaule regards as analogous to the peribronchitic nodules in phthisis pulmonum. The entire process in the testicle presented the greatest similarity to phthisis pulmonum; moreover, both affections are preceded by the same sort of diathesis, and are even usually combined in the same patient. Hence he proposes that the disease in question should henceforward be called phthisis testis, instead of tubercular testicle. Miliary tubercles are met with in the testicles, as well as in the lungs in cases of acute, general, miliary tuberculosis, but the process is then very different from the one described above.

It is true that structures which macroscopically and microscopically resemble miliary tubercles are met with in phthisis testis, and are even characteristic of a certain stage of the process. These structures, however, are not developed in the connective tissue, but are the product of a transformation of the epithelium and the wall of the tubule under the influence of the inflammatory phthisical process. Hence, they do not constitute tubercles in Virchow's sense of the term.—*Allgemeine Med. Cent.-Zeit.*, June 23d.

New Method of Tracheotomy Specially Applicable in Young Children.—Dr. J. J. Reid, of this city, advises the following method of operating: After the usual incision of the skin, and the division of the strong superficial fascia which connects the sterno-hyoid muscles, the knife is laid aside, and the next part of the operation performed by two uterine tenacula. With these the deep layers of fascia are torn and the thyroid veins are pulled aside, until the trachea is sufficiently exposed. The tenacula are then inserted into the sides of the trachea, and slight traction is made, while the tube is laid open to the desired extent with a bistoury. The wound in the trachea is thus made to gape widely, and any pieces of membrane can be removed and the tracheotomy tube easily introduced. The advantages claimed for this method of operating are that it reduces to a minimum the risk of hemorrhage, serves to fix the trachea without the danger of compression of the trachea and larynx, and facilitates the introduction of the tube.—*New York Medical Journal*, July, 1877.

Four Successive Ruptures of the Uterus in the same Patient.—Dr. Rose, of West Winfield, N. Y., reports this interesting case. The patient, an Irish woman, 32 years of age, and the mother of two children, was taken with labor-pains June 1, 1869. Five hours after labor began, rupture of the uterus occurred. Dr. Rose passed his hand into the uterus, and through the rupture into the abdominal cavity. He succeeded in finding the feet, which he brought down, and delivered a dead child, together with the afterbirth, which was also in the cavity of the abdomen. The operation was well borne, and was followed by but little peritonitis. Recovery was complete and rapid.

The next labor occurred in April, 1872. After three or four hours the pains suddenly stopped and the head receded. On passing his hand into the uterus, Dr. Rose found that rupture had again taken place. He delivered as before, by passing his hand through the rent in the womb and bringing down the feet. The patient was able to do light work in about a month. In May, 1874, she was again taken with labor pains, which lasted about two hours and stopped suddenly. The cessation of the pains was followed by abdominal tenderness and feelings of faintness, but the physician who attended her told her that the pains had stopped and might not come on for a week or more. Two days later Dr. Rose saw her, and found the os partially dilated and the uterus again ruptured. Both child and placenta lay in the abdominal cavity. Delivery was effected by version as before, but this time the tenderness was so great that chloroform had to be given. The child had been dead so long that the skin peeled off when it was handled. The rent was transverse and in the posterior part of the womb; "it felt as though half of the womb had been cut off with a knife." None of the contents of the abdomen escaped through the rent. Twelve days after the operation the patient was sitting up. The last labor came on on February 28, 1876. After the waters broke, the patient said that "she felt a great movement of the child—she felt it pressing up under her ribs." Twenty minutes later Dr. Rose saw her, and on making an examination was just able to reach one foot with the finger. Introducing his hand, he brought down the feet and delivered a living child. The patient suffered no more than is usual after an ordinary delivery.—*Chicago Med. Journal and Examiner*, August, 1877.

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GEORGE F. SHRADY, A.M., M.D., Editor.

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HOME HOSPITALS.

HERE is a great deal of talk concerning the establishment of hospitals in Great Britain, for the accomodation of persons of the middle class, and who are able to pay for the services they receive. At present there seems a necessity for this movement, as it is generally understood that none but pauper patients are allowed the benefits of treatment in the large and well established hospitals in London and other British cities. There are, as far as we can understand, no private rooms for pay patients as we find in most of our large metropolitan hospitals, and the corresponding class of patients in England who would gladly avail themselves of such privileges are entirely without them, and are forced to trust to the chances of inveniences in the ordinary boarding-houses. Although we may, to a certain extent, be considered ahead of our English cousins in this particular method of providing for a certain class of our sick, there are still many things which we can learn in connection with the movement, which may be of service to us in making our system more perfect, and in expanding its benefits. For instance, in our large hospitals the so-called private patients can be treated only by the particular members of the hospital staff. Even if we assume that the practitioners connected with our hospitals are thoroughly competent men, it is obviously unfair, to a patient who may merely wish hospital accommodations, to be forced to submit to the treatment of one or other of those who may chance to constitute the hospital staff. This is certainly a custom which can work only to the advantage of the hospital medical or surgical attendant, and is to some extent a monopoly. The gentlemen who have hospital appointments not only have the advantage of treating their own private patients in this way, but the patients of others. It can easily be seen that the patients of the attending physician or surgeon have more than the usual facilities, and it is not unreasonable to suppose that strange patients who may wish to have an operation performed upon them, will be induced to place themselves in the same relative position with the hospital operator.

An improvement upon this state of things is proposed for the Home Hospitals, in that each patient shall be treated by his own medical adviser. If this can be carried out, these Home Hospitals will become very popular, not only with the general practitioners, but with their patients. The former, instead of showing a reluctance in delivering their patients to hospital men, will be eager to send them to such establishments. Those gentlemen who are interested in making these institutions self-supporting are strongly in favor of independent medical and surgical attendance, while others, who view the question in the light of abstract practicability, discourage the movement. It is evident that somewhere between these two points of view the proper stand must be taken, but how the details will be worked out remains to be seen. As practitioners who are accustomed to look to our English brethren for the elucidation of many of the problems connected with hospital management, we shall be much interested to note the conclusions at which they may arrive.

There is, however, one element in the scheme which threatens its efficient working from the beginning, and that is the subscription plan, with privileges of benefits in perpetuity. At present it is proposed to appeal to the public for subscriptions, and to give each subscriber a share in the management of the institution, and also the right to nominate a certain ratio of patients to the hospital. Although in any pecuniary venture it is business-like to give a *quid pro quo*, it is obviously unfair to the mechanic who can afford to pay his way in such an institution, to be hindered from entering by another who is in reality a pauper, but who chances to obtain the nomination of a rich benefactor. As the time is coming when this question of Home Hospitals will interest not only the profession here, but the public, we cannot too soon become acquainted with the details of its practical solution. At present we are willing to await in patience the practical application of the many theories which have been advanced to secure the greatest efficiency and most extended popularity.

THE TEMPERANCE MOVEMENT.

THE attitude which should be assumed by the profession regarding any question bearing upon temperance can hardly be questioned. Fulfilling its mission to preserve the health of the people and guard against the physical effects of excesses of any kind, it should be always ready and willing to give its moral and scientific support to every movement calculated to secure such ends. At the present time there is a pressing need for the exercise of just such influences in connection with the temperance movement,

not only in this city, but throughout the land. Whatever opinions we may hold concerning the value of alcohol as a beverage and article of food, or a medicine, they should not weigh a particle in influencing our course towards the public at large. There is, perhaps, nothing more powerful in the way of an argument against the use of any article, than that it is injurious to the health, more especially if such an opinion comes from a medical man. In public and in private the physician doubtless can do much good in framing opinion in such directions, and can very effectually supplement the labors of temperance lecturers and reformers generally. That he often neglects this duty is evident to every one. In fact, not a few physicians, by the loose practice of prescribing alcoholic drinks, actually create in their patients a habit for strong drink, which in too many cases is beyond control.

It is well known that there are numbers of individuals in whom the will-power is paralyzed by alcohol; that no sooner do they partake of it than a liking for it is begotten, and then confirmed drunkenness is a question of very limited time. These persons make up the mass of drunkards, and should, as far as possible, be removed from the way of temptation, direct and indirect. With the former the physician may have much to do in the exercise of his calling as a prescriber, and with the latter, in giving countenance to any movement which may have a tendency to lessen the number of grog-shops throughout the land. We are well aware that the proper course to pursue, with all sensible men, is the middle one between the two extremes of drunkenness and abstinence; but by far the large majority of dypsomaniacs have never had the requisite amount of will-power and moral training to which any reasonable appeal can be made. With this class absolute abstinence is as a rule the only salvation. The lesser the number of temptations in the shape of corner tippling-shops, "retreats," "sample rooms," and the like, the better the chance of keeping a pledge. The Society for the Prevention of Crime in this city have taken a very proper view of this matter, and are waging war against unlicensed drinking saloons, with a view of bringing their number and character within the letter and spirit of the law. This is certainly one of the very many effective means to the end, and with other similar movements, notably those of the Blue Ribbon Society, deserves countenance and encouragement.

Infectious Diseases and Laundries.—The *Lancet* commission has, in the number of that journal for August 18th, a very interesting and instructive report on the spread of infectious diseases, particularly small-pox and scarlet fever, through laundries. There is no doubt that this is the frequent source of infection when every other means of preventing the disease have been scrupulously followed out.

Milk Taverns.—As supplementary to the temperance movement in Great Britain, the establishment of milk taverns is strenuously advocated.

Correspondence.

THE LATE MEETING OF THE BRITISH MEDICAL ASSOCIATION.

To the Editor of The Medical Record.

London, August 13, 1877.

Sir:—The recent meeting of the British Medical Association at Manchester was unusually large and brilliant. The Lord Bishop of Manchester delivered an eloquent opening sermon. This was followed by the address of President Wilkinson, devoted mainly to an attack on the Manchester Infirmary, which seems to possess, in a remarkable degree, all those contrivances to secure bad air, feeble illumination, and defective drainage, which are avoided in modern hospitals. Unfortunately, the infirmary is in the hands of a Board of Governors who know intuitively a thousand times more about sanitary science than all the doctors in the world, and these governors are inexorable conservatives in the sense that fossils are.

In the evening a grand reception and soirée took place at Owens College.

The next day Prof. William Roberts delivered a magnificent address on the doctrine of Contagium Vivum, and its Application to Medicine. The British Medical Journal criticises the arguments and conclusions, but the facts and deductions presented by the able speaker seemed, in the estimation of the brighter men of the Association, to go far towards the settlement of a vexed question.

The propositions which the speaker aimed to establish are these:

1. *Organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition.*

2. *Bacteria are the actual agents of decomposition.*

3. *The organisms which appear as if spontaneously in decomposing fluids owe their origin exclusively to parent germs derived from the surrounding media.*

By his advocacy of these propositions, Prof. Roberts arrays himself with Tyndall, Pasteur, Cohn, and a host of others, against the spontaneous generation theory so vehemently championed by Bastian.

The practical application of the demonstrated propositions to pathology was very ingenious, and satisfactory proof was offered that certain of the zymotic diseases—if not all of them—originate only from germs or spores.

The Sections were well attended. The papers were limited to twenty minutes and the speeches to ten. So you see it was possible to do a large amount of good, vigorous work. Sir William Jenner presided in the Medical Section, and made a capital introductory speech.

In the evening a gay party assembled at the magnificent New Town Hall, as guests of the city authorities. In the matter of entertainments, and in the cordial reception given to Americans, our British cousins have fairly outdone their well-known hospitality.

On the third day of the session, Spencer Wells gave an address on The Past, Present, and Future of Scientific Surgery. That it was able and exhaustive need not be stated in an American journal. But I may mention that the eloquent delivery was worthy of the speaker and the address, and that the applause was most enthusiastic.

After the section-work, the annual dinner of the Association was observed. It began at seven and was not quite completed at half-past twelve. T.

eeches were quite up to the mark of after-dinner k. As the hours wore away, however, some of the ıtors became slightly tedious and incoherent.

I should weary you were I to give even a list of the luable papers read in the various sections. As usual such occasions, there was an embarrassment of hes. One could not help coveting the gift of iquity, when, at the same hour, in different rooms, pers were to be read by Barnes, Charcot, Lund, icknill, Chaumont, and Brunton. The best that uld be done was to select almost at random.

I must not omit to mention the gratifying reception ven by the Association to Prof. Sayre, of your city. e has been in and about London for six weeks. uring this time he has demonstrated his admirable ethod of treating Pott's disease and lateral curva- e of the spine on more than seventy patients. These monstrations took place at Guy's, St. Thomas', and ıer hospitals, in the presence of the most distin- ished surgeons of the realm. The patients were of ages, and of all degrees of deformity. Some had en cripples but a few months, others had suffered ıny long and tedious years. Most of the cases had en under treatment—all in vain—at the hands of the st surgeons in the land. In every instance the relief forded by Sayre was instantaneous and marked. He as invited to attend the meeting of the Association explain his views and illustrate his practice. At e first demonstration the amphitheatre was packed, d crowds went away unable to obtain admission. ıe Professor was much affected by the complimen- ry introduction given by Dr. Lund, but he regained s composure speedily. By his clear and emphatic ıtement of facts, his originality, humor, pathos, and ıe eloquence, he carried his audience by storm. ow peals of laughter rang through the amphitheatre, en tears were brought to all eyes, and in frequent ccession there were most uproarious cheers such as e possible only in a British assembly. The demon- ration was a complete success. But the demand for repetition of the performance could not be resisted; the next day a new supply of patients was provided, d the Professor applied his plaster bandages and ntinued his lecture. He spoke an hour and a half a manner which delighted these eminent men amaz- gly. They expressed their gratification in the most mplimentary terms which could be employed. They eclared, and with great earnestness, that Prof. Sayre his lectures and demonstrations had effected a rmanent revolution in the surgical treatment of inal deformities, and the unanimous thanks of the ssociation were tendered him amid applause which as little less than deafening.

At the close of the meeting, a distinguished physi- an of Manchester rose and declared, with a pathos hich touched all hearts, that he was a living example the manner in which spinal diseases should *not* be eated. He had been blistered and had had sulphate copper rubbed into the raw; caustics had eaten les into his flesh adown his spine; the actual cautery ıd been applied; and he had suffered the agonies of ıe damned, without the least benefit. Had Professor ayre's treatment been known and applied forty years go, he would have been three inches taller, and would ıve been saved years of unspeakable misery. He ıded by declaring that the spirit of wisdom and love hich actuated his American friend and brother was ıe same which pervaded him who walked about ıdea eighteen hundred years ago.

Adulation such as this, added to a multitude of flat- ring letters from grateful patients and their friends, ight turn many a well-balanced head; but our American surgeon seems anxious only that his plan of treatment should be thoroughly understood and put in practice by his professional brethren; so that, through the coming ages, spinal deformities shall not only be cured but prevented, and an amount of pain and misery and mortification be abolished which is beyond human computation.

Yours,

AMOS COTTLE.

ENLARGEMENT OF PROSTATE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I am led to make some observations upon the best means of passing a catheter, in that most difficult condition which arises from enlargement of the middle lobe of the prostate, by reading the article of Dr. Squier in the MEDICAL RECORD for May 26th, and from having had a recent case of the kind in which I had tried to pass the obstruction with solid metallic, Squier's vertebrated, and all kinds of soft catheters. My case was one in which the globular form of the obstructing mass was such that a sulcus was formed, in the pocket of which any instrument was apt to lodge, where the obstruction was quite large and firm, and as I had the opportunity of observing in the autopsy. It will be found that something else is desired in an instrument, other than mere flexibility. You want to impart a motion almost, or quite, in an opposite direction from the line of intrusion; in other words, after the instrument has reached the point of obstruction, you want it to traverse a space towards the pubic bone, at a sharp angle from the line of entrance. To obtain this motion I selected a large-sized English flexible catheter, with steel style, which latter I curved very abruptly at the end, forming an arc of a very small circle—say 1½ inch. I bent the end of the style sharply inward for one-fourth of an inch, so as to force the end to hug tightly the canal of the catheter on the inside of the curve, and thus armed, passed the catheter down to the obstruction. I then withdrew it half an inch, and with an assistant to steady the penis, held the style firmly in its position, and with the other hand shoved the catheter off the style, when it glided into the bladder freely and without the slightest difficulty. The operation was frequently repeated, and with the same result. By no other means was I able to pass any form of catheter.

By curving a style in the form I describe—as abruptly as will allow of its being introduced into the urethra—and manipulating it in the manner indicated, outside the body, it can be demonstrated that the catheter, as it is shoved off the style, comes back towards the point from which the force is applied, and hence hugs the pubic bone and traverses the tortuous passage to the bladder. It is very simple, and only needs a trial to be appreciated.

M. E. POYNTER, M.D.

MIDWAY, KY.

A CASE OF EXTENSIVE COMPOUND FRACTURE OF THE SKULL, WITH RECOVERY.

TO THE EDITOR OF THE MEDICAL RECORD.

IT would be difficult to class the following case of fracture of the skull under any of the usual headings, unless the term "smash" of the frontal bone be applied to it, as used in the surgical history of the war.

Case.—Enos McDonnell, æt. 35, was engaged in blasting rock, March 8, 1877. A charge which he had ignited failed to explode, and on approaching to

examine the cause, and while stooping over it, the explosion occurred. A piece of rock struck him with great force in the forehead (left frontal eminence), driving fragments of the bone before it into the brain. When I saw him an hour after the accident, he was *quite conscious*. The opening in the skull had a diameter of about an inch and a half. Some of the fragments were imbedded to a depth of an inch in the substance of the brain. I removed five large pieces and five small fragments, using the forceps and elevator. Of the five larger pieces, one measures 1¼ by 1 inch; one 1 inch square; one 1 by ½ inch; one ⅝ by ½ inch, and one ½ by ⅝. The two largest pieces are portions of the inner and outer table which fit together; they had been entirely separated by the shock.

The subsequent treatment of the case consisted of bleeding, purgatives when required, water-dressings, and careful attention to drainage and cleanliness. I had the patient to lie on his face most of the time, as hemorrhage was quite free at first, and later suppuration was profuse.

I could always tell at my morning visit if he had been lying on his back through the night: his pulse would drop to about 50 under such circumstances; generally it was regular at 60 to 65.

I found a reflecting mirror very useful in watching the granulating process within the cranium, and by its aid I was enabled to illuminate recesses in which pus was hidden, and to remove additional spicule of bone which otherwise could not have been discovered.

The flaps were kept from falling in during the healing process by careful sutures, but on account of suppuration it was not attempted to draw them over the wound.

The cicatrix is very firm, and the man has been drilling and blasting in the mines since May, until the present strike. He has not a solitary symptom of trouble, mental or physical, so far.

J. EMMET O'BRIEN, M.D.

SCRANTON, PA., Aug. 13, 1877.

THE GENITAL FEVER.—In a review of Black on the Diseases of the Urinary and Reproductive Organs, in the British and Foreign Medico-Chirurgical Review for July, 1877, the following judicious observations are made:

"The 'sera juvenum Venus, ideoque inexhausta pubertas' is true still; and most healthy, manly cricket-playing lads, working students and dressers, and many young officers, really trouble their heads very little about their generative organs. It is the pasty-faced, slouching, smoking and drinking lads, who can neither look each other or any decent woman in the face, half mad and quite stupid, for whom such books as this require to be written. They will be pleased with arguments on the evils of continence, not the men who are to do the work of the world. We are no advocates for prudery or concealment: let boys be warned of sexual temptations and sexual dangers, but let them be told, when the unsavory subject has been broached, that the less they think about the state of their genital organs the better; that a nocturnal emission, now and then, is not a thing to whimper about; that the loss of mucus from a cold in the head is quite as exhausting and much more offensive; that perhaps there have been too many bedclothes, or the bedroom window has not been opened enough. Teach them to swim, box, play cricket, and speak the truth; feed them simply, and show them that smoking, drinking, and sweetmeats will spoil their training, and then books of this kind will not be so much needed, even for the profession."
—*American Practitioner.*

New Instruments.

HUETER'S FLAT MALE CATHETER, AND HIS MODE OF ASCERTAINING THE DILATABILITY OF THE MALE URETHRA.

By A. ROSE, M.D.,

NEW YORK.

C. HUETER, of Greifswald, has published in the *Deutsche Zeitschrift für Chirurgie*, Bd. VIII., p. 221–225, an article entitled "Praktische Notizen zur Pathologie und Therapie der Krankheiten des Urogenitalapparates," in which he recommends the use of flat catheters. The following is a synopsis of his article:

The success obtained with Stearn's instrument for dilation of urethral stricture called Hueter's attention to the value of the flat distention of its wires; he believed this to be the reason why Stearn's dilator would pass through small strictures, when the smallest round sound, the diameter of which was less than that of Stearn's instrument, would not pass.

The common pathologic difficulties of catheterism, such as strictures and prostatic swellings, belong to the posterior division of the urethra, the pars bulbosa, membranacea, and prostatica. The shape of catheters, made of unyielding material, must be accommodated to the shape of the canal of the urethra in these parts. The meatus of the urethra is a vertical slit, which at the fossa navicularis becomes horizontal, pretty large in the pars cavernosa, narrowing in the pars membranacea, without losing, however, the character of a horizontally flat slit. If the dilatability of the urethral walls was greatest in the direction of the median line of the body and less in the lateral direction, an ordinary sound might pass the slit with but little more difficulty than a flattened instrument. Hueter found the dilatability of the urethra by filling the passage in cadavere with a hardening substance, and then obtained the cast of the conduit by corrosion of the surrounding soft parts. This cast showed that the centre part of the urethra, being the largest, is also the most capable of dilatation; here the cast is round and a round metal staff will pass as easy as a flat one. corresponding with the pars membranacea, however, the cast becoming oval, or rather, as both urethral walls meet in nearly acute angles, spindle-shaped, the use of flattened catheters is indicated.

Hueter had horizontally flat catheters made of diameters in proportion of 1:2. The numbers of sizes he indicates by millimetres of width. The eyes of the catheters are at somewhat different distances from the point, one on the anterior, the other on the posterior wall of the instrument. The customary curve of the instrument is preserved.

The trial of the flat catheters in Hueter's Klinik, on different patients, gave in every respect satisfaction.

Messrs. John Reynders & Co. had the kindness to make some catheters after Hueter's plan for me, and supplied the accompanying woodcut.

I have used a catheter made according to Hueter's description, of a lateral diameter of 8½ millimetres

on two patients; at first, on one suffering of typhus abdominalis, whom I had to pass on twice daily to relieve retention of urine. Before having taken notice of Hueter's article I had used an ordinary metal catheter, No. 11 English; but after having used Hueter's instrument, observed that it passed through the posterior part of the urethra with surprising readiness, as was confirmed by the patient himself. The second patient is an old gentleman whose bladder is very often irrigated since several years, on account of chronic cystitis; generally with warm water, and sometimes with a weak solution of acetate of alum. Upon using the flat catheter on this patient, instead of the round one as before, I experienced also more facility of introduction. The patient was of the same opinion, and considered the instrument a valuable improvement. In both cases I found it advisable to introduce the catheter in accordance with the vertical direction of the slit at the meatus, and during progress to turn it.

Finally, I do not hesitate to give expression to my opinion that this flat form of catheters will gradually supersede all other forms as soon as it becomes sufficiently known.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 26 to September 1, 1877.

ALDEN, C. H., Major and Surgeon. To join his proper station, Fort Townsend, W. T. S. O. 117, Dept. of the Columbia, August 16, 1877.

GARDNER, W. H., Capt. and Asst. Surgeon. To proceed to Greenville, S. C., for purpose of looking after med. and hosp. property, etc., and then rejoin his station, Allegheny Arsenal, Pittsburg, Pa. S. O. 197, Div. of the Atlantic, August 28, 1877.

FITZGERALD, J. A., Capt. and Asst. Surgeon. Upon arrival of Surg. Sternberg at Fort Lapwai, Ida. T., to transfer to him the med. property of the post, and then report without delay to the Comd'g General of the Department, in person, in the field. S. F. O. 34, Hdqurs. Dept. of the Columbia, in the field, July 22, 1877.

PAULDING, H. O., 1st Lieut. and Asst. Surgeon. Upon conclusion of summer's campaign, to accompany 7th Cavy. to Fort A. Lincoln, D. T., reporting to the Comd'g Officer of that post for duty. S. O. 113, Dept. of Dakota, August 21, 1877.

HALL, WM. R., 1st Lieut and Asst. Surgeon. Assigned to duty at Camp Macbeth, Kamiah, Ida. T. S F. O. 31, Hdqurs. Dept. of the Columbia, in the field, July 18, 1877.

TAYLOR, M. E., 1st Lieut. and Asst. Surgeon. To proceed to Baton Rouge B'ks, La., for purpose of looking after med. and hosp. property, etc., and then rejoin his station, Wilkesbarre, Pa. S. O. 197, C. S., Div. Atlantic.

GARDNER, E. F., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort A. Lincoln. D. T., and assigned to duty at Fort Ellis, M. T. S. O. 113, C. S., Dept. of Dakota.

CORBUSIER, W. H., 1st Lieut. and Asst. Surgeon. To proceed to Chattanooga, Tenn., for purpose of looking after med. and hosp. property, etc., and then rejoin his station, Jeffersonville, Ind. S. O. 197, C. S., Div. Atlantic.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending September 1st, 1877.

Week Ending	Tyrhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Aug. 25	0	14	44	3	10	29	0
Sept. 1	0	28	29	2	10	28	0

NEW YORK PATHOLOGICAL SOCIETY.—The second volume of transactions of this Society is in press, and completes the reports of cases presented in 1875, which reports are largely supplemented by those of similar cases since 1844.

CONFESSION: THE PHYSICIAN AND THE PRIEST.—*The Lancet*, in speaking of Dr. Bucknill's late address before the Association of Psychologists at Manchester, says: "The psychologists who recently met at Manchester, under the presidency of Dr. Bucknill, must have been not a little charmed by the address which they heard from the chair. The title of the address, 'Confession: the Physician and the Priest,' was alone sufficient to attract a multitude. But what shall we say of the matter under the title? We should say that to characterize it faithfully our adjective store requires a refurbish. The address was made up of merits. It was short; it was learned; it was shrewd; it was long-sighted; it was wide in literary range, extending from Tristram Shandy to Bishop Hooker, from Master Gulliver to Herbert Spencer; it was wise and guiding; it was poetical; it was witty; and as it suggested that seven hundred or so of reverend clericals are subjects at this moment for the most earnest attention of mental physicians, we may add that it was all alive with interest to those before whom it was delivered. There are three points really in the address, when its clothes are taken off, which attract special notice. It sagely tells practising psychologists that it is bad practice for them to bury themselves in their asylums, instead of going out into the world to see the general sanity of varied degree there extant. It tells the priest that at present he is not a physician, and that a comparison between obscene priestly books and medical treatises is only just when the medical books referred to are the poisonous pamphlets of the manly-vigor quacks. Lastly, it informs the priest that confessional practices are not synonymous with methods of medical diagnosis; that the physician is a naturalist, the priest a supernaturalist, and that no sophistry can bridge the abyss between them. This is plain speaking and faithful, and indeed the whole essay is a characteristic utterance by one who knows what he says, and says what he knows. We agree with Dr. Bucknill that, as things are, the distance between the priest and the physician is the distance between the natural and the supernatural. We admit also the extent of the difference. We do not, however, believe that any class of men will for ever stand on the supernatural, and for this reason we differ from him on his most important conclusion. He quotes from Descartes what we should quote also on this subject,

that 'if it be possible to perfect mankind, the means of the perfection will be found in the medical sciences,' in which work, as we think, minister and physician will ultimately find equal occupation, and of the same natural order."

Skim-Milk in New York.—A great quantity of skim-milk is sold in New York, and yet is up to the lactometer standard of the Health Board. When specific gravity is alone relied on, it is easily seen that the removal of cream actually increases the density of the milk, and gives the best possible chance for adding water to reduce this specific gravity still more. Many milk speculators understand this, and act accordingly.

Autopsy in a Case of Death from Lightning.—An inquest was held at the Melbourne Hospital on the 17th February, on the body of a man killed by lightning. Dr. Hefferman's account of the post-mortem was as follows: "On removing the scalp, I found a clot of blood about an inch square over the right forehead. On the front of the right hemisphere of the brain, beneath the membrane, and corresponding to the bruise on the forehead, there was a thin layer of semi-fluid blood over an area of two and a half inches. The brain-substance was normal. There was a diamond-shaped fracture of the right orbital plate of the frontal bone, but not opposite the external bruise or internal area of blood. The right side of the heart was full of dark liquid blood, and the left side was contracted. All the internal organs were healthy."—*The Lancet.*

Population of Norway.—The population of Norway in 1665 was about 460,000 inhabitants. Since 1815 it has increased about 1¼ annually, and the census of 31st December, 1875, gave the number of 1,817,000 inhabitants. In the last thirty years the annual excess of births over deaths has been, on an average, 1.38 per cent. The principal cause of this is the small mortality, which, on an average, only amounts annually to 1.76 per cent. of the population—a proportion smaller than in any other European country. The mortality of new-born infants is in Norway, on an average, 11 per cent., while everywhere else it has been 15 to 20 per cent.; and it has always been less for female than for male infants. This small mortality may be due to the fact that the women in all classes of society always suckle their infants during the first year, and often much longer.

Idrosis—Fever and Ague.—Dr. A. L. Sweet, of Long Island, writes: I have never noticed, in the medical journals which have come under my observation, anything in regard to the use of the juniper tar soap in excessive sweating of the feet. If it is not generally known, it may be of interest to state that I have found nothing comparable to the above-named remedy for this distressing and frequently disgusting affection. I use that prepared by Caswell & Hazard, and have recently completely relieved the worst case I ever saw (the patient my brother-in-law), where the secretion was so abundant and offensive as to destroy a pair of shoes in a short time, and fill nearly the whole house with the odor.

The following prescription for fever and ague has never failed in my hands to afford prompt and permanent relief:

℞. Cinchonidiæ sulphas.....	grs.	lxiv.
Acid sul. aromat.....		q. s.
Tinct. nucis vom.....	♏	clx.
Syrup simplici.....	ad.	f. ℥ iv.

M. One teaspoonful every four hours until the paroxysms are broken, then two doses a day for a week or more. This seems to be a small dose of the alkaloid, but in the combination it is perfectly effectual, produces no unpleasant head symptoms, and the patients are not nearly so subject to relapses as when the quinia sulphate is used.

Death from Chloroform Averted by the Inhalation of Nitrite of Amyl.—*The British Medical Journal*, August 18th, says: "We have received from a physician the following interesting report for publication: On the 9th instant, I was asked by a professional friend to administer chloroform to a patient of his, from whom he was about to remove a fatty tumor, situated in the left lumbar region. The patient in question was about forty-nine years of age, married, the mother of several children, of thin, spare habit, but otherwise in good health. She was nervous, and apprehensive of the result, entreating me not to give her too much chloroform. Having previously examined the heart and found all the sounds normal, I gave her about two teaspoonfuls of brandy undiluted: and after waiting a few minutes, and placing her in the recumbent posture, I commenced the administration. The chloroform I used was Duncan and Flockhart's, upon the purity of which we can always depend. I poured a measured drachm upon a piece of lint, enveloped in a towel. I held it some little distance from her mouth and nose, and let her inhale slowly. My friend noted her pulse, whilst I carefully watched the respiration. The first dose did not produce any effect, and I then used another drachm, which soon caused a good deal of excitement, incoherent talking, and struggling—the patient striving several times to snatch the inhaler from my hand. This gradually subsided, and she appeared to be passing into the third stage of anæsthesia, when she made an abortive attempt to vomit, raised her head from the pillow, and, to my friend's great alarm, the pulse flickered and stopped altogether; she gave a gasp; foam gathered on her lips; her jaw became rigid; and to all appearance she was dead. I immediately withdrew the chloroform; my friend dashed some cold water on her face and pulled her tongue forward, whilst I commenced artificial respiration, after Marshal Hall's method, but without success. We then poured some nitrite of amyl on lint, and held it to her nostrils. In such emergencies, it is impossible to judge the flight of time correctly; but I should say in ten seconds there was a flushing of the face, the pulse was again felt, and, to our great joy, the all-important function of respiration was again restored, the woman being rescued apparently from the very article of death. After a time, the anæsthesia seeming tolerably profound, my friend proceeded to remove the tumor, which he did in a rapid and skilful manner, whilst, as the patient grew restless, I gave an occasional whiff of chloroform. It proved to be an ordinary fatty tumor. Only one small vessel required to be ligatured. The wound has since healed rapidly, and the patient has made a good recovery. In looking at the order of symptoms, I cannot help forming the opinion that, had it not been for the nitrite of amyl, this poor patient would assuredly have died. I have never seen, either in surgical or obstetrical practice, any one in such imminent peril. I am thankful to say I have never witnessed a case of death from chloroform; but, from the accounts published in the medical journals, both I and my friend inferred that, in the present instance there was syncope arising from paralysis of the heart and that this was met by the nitrite of amyl, which in accordance with its physiological effects, gave a direct fillip to the arrested circulation.

Original Lectures.

LECTURES ON DISEASES OF THE HEART

By AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Reported for THE MEDICAL RECORD.]

LECTURE II.

SYMPTOMATIC PHENOMENA ACCOMPANYING ORGANIC LESIONS AT THE AORTIC ORIFICE—ENLARGEMENT OF THE HEART.

GENTLEMEN:—To day we will study the symptomatic phenomena following lesions at the aortic orifice. These lesions are aortic obstruction or aortic regurgitation, or both combined. In the first place, what is the effect produced upon the heart itself by these lesions? They lead first to hypertrophy and then dilatation of the left ventricle. We have in this specimen a very good illustration of the effect produced upon the left ventricle by organic lesions affecting the aortic valves. There is, as you see, a contracted and rigid condition of the valves, the walls of the left ventricle are hypertrophied, its cavity is dilated, and the dilatation evidently predominates. It is probable that there was present during life evidence of both aortic obstruction and aortic regurgitation.

Now what were the symptomatic phenomena probably afforded by such a case as this? A patient is more likely to be conscious of undue force of the heart's action when the left ventricle is hypertrophied than when the ventricular hypertrophy affects the right side of the heart. It is not uncommon, therefore, for persons having aortic lesions and hypertrophy of the left ventricle to complain of suffering from increased force of the heart's action, and direct the attention of the physician especially to that symptom. It is frequently the only occasion for consulting the physician. Lesions at the aortic orifice do not, for a considerable period, lead to the production of dyspnœa. So long as the hypertrophy predominates over the dilatation there is usually no complaint of difficulty of breathing; but when dilatation begins to predominate over hypertrophy, the patient is conscious of an undefined sense of oppression, which is referred to the præcordium. It is not exactly dyspnœa; it is rather an indefinite feeling of distress and discomfort. This fact will lead you to make the necessary physical examination to determine whether cardiac disease is present, and, when made, the physical signs of aortic obstruction or regurgitation, or both, are found.

We will now suppose that the disease progresses, that the dilatation becomes greater and greater, yet these patients rarely have dropsy.

Dilatation of the left ventricle, in itself, never leads to dropsy. It may occur in the course of disease resulting from left ventricular enlargement; but as a general statement, if the lesions are confined to the aortic orifice, and their enlargement by dilatation is chiefly in the left ventricle, we do not have dropsy. The patients suffer more and more of this indefinite discomfort referable to the præcordia, and by and by this increases beyond that degree which is expressed by such terms as discomfort or sense of oppression. Upon taking active exercise, or from the influence of mental emotion, etc., the heart's action is unduly increased, and what is the result, assuming that the left ventricle is dilated? This cavity becomes filled with blood, and its walls have not sufficient power to empty it fully.

Now the patient is in a certain amount of danger; the distress is very great, and there is a feeling of impending death. This is the condition of the heart, which involves the liability to sudden death. When sudden death occurs from heart disease, the lesions, as a rule, are aortic, and especially involve regurgitation.

When, therefore, we have evidence of abundant regurgitation at the aortic orifice, and dilatation of the left ventricle, we must always consider that the patient is in more or less danger of sudden death. This is a common termination, unless death is due to some intercurrent affection. We do not have dropsy or dyspnœa, or any distinctive and marked affection of the nervous system, or the digestive system, but there is danger of sudden death from over-exercise. The cause of the sudden death is paralysis of the left ventricle from over-distention. It is easy to understand how this takes place.

As a rule, patients with mitral lesions do not die suddenly. The common idea is that all persons having disease of the heart are especially liable to sudden death. But that is true only with regard to aortic lesions involving free regurgitation.

What effects upon the circulation, as shown by the pulse, do aortic lesions produce? They are usually well marked. In proportion as we have aortic obstruction it is very obvious that we should have a feeble pulse. Aortic obstruction is of much less frequent occurrence than aortic regurgitation, and the effect produced upon the pulse by the latter is quite characteristic. The characteristic features have been recognized for a long time, and the pulse has been designated by a variety of terms. It is the pulse of unfilled arteries. We have two currents of blood coming together, and the effect of that is to give a *jerking* character to the pulse, and that term is perhaps as expressive as any other which has been used. The artery strikes the finger with a certain degree of force, although it is not forcible. The quickness of the stroke gives an impression of force, and when the stroke is made the artery appears to recede immediately. In situations where arteries of some size can be seen, for example, in the neck, the vessel seems, at each pulsation, to move over a greater space than normal, and the movement is quick, as if the stroke was instantly received.

Of course, you are not to confine yourselves to this symptom in making a diagnosis, although it is highly characteristic. This peculiar jerking character of the pulse as recognized by the touch is supported by the tracings of the sphygmograph. There are so many difficulties attending the practical application of this instrument, however, that I will not now stop to give it reference. These are the more important diagnostic or symptomatic phenomena which stand in relation to organic lesions at the aortic orifice.

I would say with regard to the urine—and it is an important point—that in *mitral* lesions, which involve more or less general congestion throughout the system, it is very common to find evidence of a certain amount of albumen as the result of a congested condition of the kidneys. It does not necessarily indicate any disease of these organs beyond the congested state in which all the organs of the body to a greater or less degree are placed. The amount of albumen is always slight. If there is a considerable quantity of albumen present in the urine, it may be regarded as evidence of something more than mere congestion of the kidneys. We do not expect to find casts of the uriniferous

tubules which constitute important evidence of renal disease under other circumstances.

I may mention one point in regard to the urine which has relation to organic disease of the heart in general, but more especially to mitral lesions. The peculiar distress attending aortic lesions gives the impression to the patient of sudden death in some instances, but not in all.

In mitral lesions, however, even when there is considerable embarrassment of respiration and dyspnœa, the patients, as a rule, are not very anxious with regard to their condition. There is a remarkable difference in cases of organic disease and cases of purely functional disease of the heart, in respect to purely mental effects.

As a rule, patients who have a purely functional disturbance of the heart, have great mental disturbance; whereas, in patients with mitral lesions, and suffering more or less from dyspnœa, with a frequent, feeble, and perhaps irregular pulse, there is an entire absence of the anxiety and apprehension present with functional disease. I am not able to explain why such differences should exist, but it is a well-established clinical fact.

ENLARGEMENT OF THE HEART.

Before proceeding to consider enlargement of the heart, I must state certain anatomical points which are necessary to be borne in mind relating to the boundaries of the præcordia. The præcordia is divided into two portions, according to the relation which it has to the lungs. In a portion of the præcordia the heart is in contact with the walls of the chest; in the remaining portion the heart is covered with lung. These two portions of the præcordia are known by the terms, deep and superficial cardiac spaces. The superficial cardiac space is that in which the heart is uncovered with lung; the deep cardiac space is that portion of the præcordia in which the heart is covered with lung. It is desirable that you should recollect the boundaries of the superficial cardiac space, and the rule for finding them is the following. This rule is not absolutely correct, but it is sufficiently so for all practical purposes:

If you take a point in the median line, on the sternum, on a level with the costal cartilage of the fourth rib, and draw an oblique line from that point to the situation of the apex beat in the fifth intercostal space, and regard it as the hypothenuse of a right-angled triangle, you have with sufficient accuracy by such triangle marked out the boundaries of the superficial cardiac space. This is not exactly accurate, because the anterior border of the left lung, as it covers the heart, does not make a perfect oblique line between the two points given, but it answers all practical purposes.

The normal situation of the apex-beat must also be recollected. As a general rule, it is found in the fifth intercostal space, and a little within a vertical line through the nipple. This is the position normally occupied by the apex-beat, assuming that the person is sitting or standing. In the recumbent posture the apex-beat may rise as high as the fourth intercostal space, and there are occasional cases in which it can be felt at that point while the person is in the upright posture.

Practically speaking, the base of the heart is at the second intercostal space near the sternum. In reality this is just above the base, but it is in this situation that the sounds produced at the aortic and pulmonic orifice are best studied, either in health or disease. You now have the upper and lower boundaries of the space in the chest occupied by the heart, its base and apex, and in addition it is important to memorize the two lateral boundaries of the organ. The right lateral boundary is represented by a vertical line situated about a finger's breadth to the right of the right margin of the sternum. The left lateral boundary is at or a little within a vertical line passing through the nipple.

These boundaries also are not strictly accurate for all cases, for the bulk of the heart varies within certain limits in healthy persons. They approximate accuracy, however, sufficiently for all practical purposes.

We have now studied the physical signs which represent valvular lesions of the heart, and the symptoms which are associated with organic lesions at the mitral and aortic orifice. In our study we have had occasion to say that organic lesions at the mitral or aortic orifice do not directly lead to grave results. They lead to grave results only indirectly, and the intermediate condition is enlargement of the heart; first, by hypertrophy, and second, by dilatation. Still farther, the enlargement by hypertrophy is, comparatively, unattended by grave consequences. The hypertrophy compensates for the difficulties interposed in the circulation arising from the valvular lesion. It is the dilatation which more especially, and chiefly, stands in relation to the important events and symptoms observed in connection with organic disease of the heart.

I have not spoken of the means by which we determine whether hypertrophy or dilatation of the heart is present, and it is to the consideration of that topic that I shall next direct your attention.

The questions are: What are the means by which we determine whether enlargement of the liver is present? Having determined its presence, what are the means by which we determine the degree and kind of enlargement? I shall not dwell upon these questions to-day, but shall consider them somewhat in detail at the next lecture. A few points, however, will be referred to in connection with the case before us, which is said to be a very good illustration of enlargement of the heart.

In the first place, the situation of the base of the heart, in cases of enlargement, is but little, or not at all, changed. The increased space occupied by the heart is, therefore, downward and to the left and right. The increase, however, is much more towards the left than towards the right, even when the cardiac enlargement is very great. In a case of enlargement, then, we may expect to find the apex-beat lower than natural, and carried more or less to the left; the distance in each instance being affected by the degree to which the organ has been increased in size, and the part of the heart in which the enlargement predominates. When the enlargement predominates on the left side of the heart, other things being equal, the apex-beat is lowered without being carried far to the left; whereas, if the increase in size be mainly upon the right side of the heart, the apex-beat is carried more to the left than downward. The first thing, then, to be determined in examining a given case, suspected to have enlargement of the heart, is to ascertain what relation the apex-beat has to the normal position.

If you will look at the anterior part of the chest of the patient before you, the impulse of the heart can be seen, as is not infrequently the case. You will also notice that there are several points, in the neighborhood of the apex, at which there is a visible pulsation. This also is nothing uncommon, and there may be an impulse from the apex to the base in each intercostal space. Under such circumstances, unless due care is taken, there is a liability to error in determining the

exact situation of the apex-beat. We may have a strong impulse above and a weaker impulse below, and if your attention is not attracted to that point, you may say, "Here is the apex," whereas it would be not at the situation of the upper and stronger impulse, but below or above, as the case may be.

The lowest impulse is frequently weak as compared with the impulse above, and it is for this reason that when the heart is enlarged, especially in the left ventricle, the form of the apex undergoes considerable change, and the result is that the impulse at the apex is weak, whereas the impulse produced by the heart is strong.

You will then find the lowest impulse, which, in this case, is in the sixth intercostal space, and about one-half an inch to the left of a vertical line passing through the nipple. The heart in this case occupies an increased space downward and to the left, and the extent to which it is lowered and carried to the left is a very good criterion as to the degree of enlargement; the enlargement here being well-marked, but not excessive.

In the next place, in enlargement of the heart, the præcordial dulness will be increased in area and increased in degree. Why do we get this increased dulness, both in area and in degree?

It is because, in proportion as the heart is enlarged, it uncovers itself and pushes away the anterior border of the left lung. The amount of increased superficial cardiac space thus obtained carries with it an increased degree of cardiac dulness corresponding to the amount of lung removed. As we percuss over the præcordia in this case, it is easy to determine that the area of dulness is increased, and when we compare it with the dulness obtained by percussing in the same region in a healthy chest, it is readily perceived that the dulness is increased in degree. These are all the means necessary to be employed to enable us to determine whether enlargement of the heart is present, and they are very simple in character and easy of application.

Now, as to the kind of enlargement. Which predominates, the hypertrophy or the dilatation? This question, also, is very easily settled. What are the points by which it is determined?

First, we have the evidence afforded by palpation. For, in proportion as hypertrophy predominates over dilatation, the action of the ventricles is strong, and in proportion as dilatation exceeds hypertrophy, the cardiac impulse is weak. As I apply my hand to the præcordial region in this case, it receives a strong heaving impulse, communicated through the thoracic walls. This alone is, as a general rule, quite a certain means of determining whether, in the enlargement, it is the hypertrophy or the dilatation that predominates. There is, however, another and more sure method of answering this question, and that is by means of the stethoscope. Place the instrument over the heart and determine what is the character of the first sound. In proportion as the heart is hypertrophied, we have the first sound intensified; all its characters are more marked than in the normal sound. In proportion as the dilatation predominates over the hypertrophy, we have the first sound divested of all its distinctive characters, and it has acquired the valvular, clicking character. In some cases the second sound of the heart may be even louder than the first. In this case the first sound is intensified and is booming in character. We have, then, evidence of enlargement of the heart, and also of the degree and kind of enlargement. To complete the case, let us determine whether the patient has enlargement associated with valvular lesion. There is such lesion, as evidenced by the presence of an aortic direct and a mitral regurgitant murmur. The subject of enlargement of the heart will be farther considered at our next lecture.

THE NATURE AND TREATMENT OF NEURASTHENIA (NERVOUS EXHAUSTION), HYSTERIA, SPINAL IRRITATION, AND ALLIED NEUROSES.

By GEORGE M. BEARD, M.D.

THERE is a large family of functional nervous disorders that are increasingly frequent among the indoor classes of civilized countries, and that are especially frequent in the northern and eastern parts of the United States, but of which our standard works of medicine and our lecture-rooms give little or no information. This family of diseases—or of symptoms, if we prefer to call them such,—include *neurasthenia*, or nervous exhaustion, *cerebral irritation* (cerebrasthenia), *spinal irritation* (myelasthenia), constitutional *neuralgia*, *sick headache*, *nervous dyspepsia*, *physical hysteria* (as distinguished from *psychical* or *mental* hysteria), *hay fever*, *inebriety*, and *pathophobia*, or morbid fear, in its different varieties, as *agoraphobia*, or fear of places, and *astrophobia*, or fear of lightning.

The sufferers from these maladies are counted in this country by thousands and hundreds of thousands; in all the Northern and Eastern States they are found in nearly every brain-working household; and yet one might graduate at all of our colleges, read all of our most-used medical treatises, and converse with the majority of our ablest practitioners, without obtaining any just ideas in regard to the nature or treatment of these maladies. Even when these affections are treated of at all, usually it is one-sidedly, partially, and erroneously. Thus, neurasthenia is confounded with anæmia; spinal irritation is confounded with spondylitis or spinal congestion, or is attributed to mere circulatory irregularities, as anæmia or hyperæmia; sick headache is regarded as a disease of the stomach, and treated with antacids and purgatives; physical hysteria is stigmatized as a malady of the imagination; hay fever is supposed to be parasitic or infectious; inebriety is mistaken for drunkenness; while cerebral irritation and the different varieties of morbid fear are not mentioned at all.

Conversing on the subject the other day with a very intelligent interne of one of our largest hospitals, I found that neither in the medical school nor in the hospital had he received any suggestions relating to any of these functional diseases of the nervous system, although, if he should ever engage in private practice among the better classes of any of our larger cities, he will meet these diseases every day and every hour, and his success will depend to a considerable extent on his success in managing them.

Various causes combine to keep these functional nervous disturbance from being understood and recognized in medical schools and literature. They are but little known in Europe, whence until recently nearly all of our medical works have been obtained. They are not found in hospitals or dispensaries, and so do not afford material for clinical lectures to students. They are comparatively recent maladies, and there has been scarcely time to exhaustively observe and unify their symptoms. All these diseases are symptoms of impoverishment of the nerve-force, and are the results of the drafts made on the vital energies by the increase of work and worry, under the stimulus of the telegraph and railway and the periodical press.

These disorders are transmissible oftentimes, taking

he place of each other. They run in families more demonstrably than scrofula, or cancer, or consumption. Indeed, one great cause of the rapid increase of these disorders during the first quarter of the century has been inheritance. It is not difficult to find families in which all these diseases are represented; and there are individuals who at different times, or at the same time, suffer from all or nearly all of them.

I have said that in Europe these affections are but little known; but, in liability to them, all the European countries are not alike. They appear to be least common in Germany and Russia, Italy and Spain; considerably more frequent in France, and more frequent still in England. A good type of this family of neuroses is hay fever or inebriety, and it is observed that both of these disorders are incomparably more abundant in the United States than in any other country, where, indeed, they have alone excited wide attention. In England, and even in France, these same diseases are now beginning to arouse public interest, while, in Germany and the rest of Europe, the existence of such diseases is scarcely suspected, or credited even by the leaders in the profession.

Although these difficulties are not directly fatal, and so do not appear in the mortality tables; although, on the contrary, as I have many times pointed out, they tend to prolong life and to protect the system against febrile and inflammatory diseases, yet the amount of suffering that they cause is enormous. Volumes are written on typhoid and other fevers; but in this country these neuroses, although not fatal, cause more distress and annoyance than all forms of fever combined, excepting perhaps those of a malarious origin. Fevers kill, it is true, while these neuroses do not; but to many death is by no means the most disagreeable of the many symptoms of disease. A cyclopædia of medicine, adapted to the wants of the practitioner in the northern and eastern parts of this country, should contain a full volume devoted to these diseases; and yet, so blind is our deference to Europe, so fearful are we of making our own independent, original observations of the maladies peculiar to this land, and so completely are we tethered to hospital and dispensary experience, that up to the present time there is no monograph even on these diseases, and all attempts on the part of experts to study them, or to diffuse a knowledge in regard to them, are met at every step with inappreciation or positive opposition. If this family of diseases is to be studied at all, it must be in this country, where the material in vast and increasing abundance is to be found. If we depend on Europe, or on hospitals and dispensaries that are patronized mostly by European peasantry, we shall never know anything about these disorders. The position of European physicians in regard to these maladies may be understood by one or two facts. Niemeyer doubts the existence of spinal irritation, a condition which among the better classes of American women is almost as common as headache or hemorrhoids. Two very friendly English critics, noticing my work on hay fever, expressed sincere regret that I should spend my time and force on so trifling a subject; and yet the 50,000 victims of that disease in this country—probably five times more than in all the rest of the world—are as much in need of relief as the victims of rheumatism, or neuralgia, or malaria; and there are few diseases that offer greater difficulties and complications to the student, or that have been obscured by more false reasoning.

These diseases I bring into one family, because they have a common pathology, a common prognosis, a common history, and a common treatment. They all occur under similar conditions and in similar temperaments. They are all diseases of civilization, and of modern civilization, and mainly of the nineteenth century, and of the United States. They are to be distinguished from certain other nervous diseases oftentimes regarded as functional, as chorea, writer's cramp and epilepsy, and psychical hysteria, and especially are they to be distinguished from unquestioned structural or congestive diseases, such as locomotor ataxy, progressive muscular atrophy, tetanus, and apoplexy, all of which diseases are probably thousands of years old, are not restricted to civilization, though more frequent in civilized countries, and are as common in Europe as in America, if not more so. These organic or structural nervous diseases also occur chiefly in the strong or comparatively strong; they are not diseases of nervous debility, and abound more among the muscle-working than among the brain-working classes.

The general pathology of all of these affections is undoubtedly *malnutrition*—circulatory disturbances, anæmia or hyperæmia, local or general, being secondary. In the pathology as well as physiology of the nervous system both nerve-force and blood are indispensable, and act and react on each other; but if either comes first, it surely must be the nerve-force which originates in the nerve-cells. When the nerve-tissue is exhausted from any cause, we have neurasthenia, which may exist even where there is no anæmia, and which may be entirely independent of the circulation, although it usually affects it more or less and is affected by it. The long-mooted question of the pathology of certain of these diseases, as sick headache and spinal irritation, is thus seen to be much broader than has been supposed, and includes the pathology of this whole family of diseases.

These affections have a common prognosis in these respects, namely, that they do not necessarily shorten life, that they keep off other and more serious and fatal diseases, that they run into each other, and are all transmissible.

This family of maladies has in general a common therapeutics; all are to be treated on substantially the same general principles—the wise use of tonics, sedatives, and stimulants, varying the manner of administration and the special form according to the peculiarities of each case. To trace out each special symptom and treat it alone is unphilosophical and usually unsuccessful, save for temporary relief. The sedatives and tonics on which I mainly depend are electricity in the form of central galvanization and general faradization, massage or rubbing and kneading of the muscles, cod-liver oil in emulsion or glycerine, phosphorus in some of the various preparations (phosphoric acid in the oil emulsion, or phosphide of zinc), strychnine, arsenic, and iron. For some months past I have been using protagon with some apparent advantage. Special symptoms and state and general irritability are combated by bromhydric acid, bromide of camphor and the other bromides, and caffeine; counter-irritation, by the actual cautery and by *very small* blisters on the nape of the neck and spine, is of great value, and may be used in such a way as to cause little pain or annoyance. Calabar bean as a spinal sedative, and gelsemin in neuralgia, are to be commended.

In the hygiene of this class of cases the great factors are *rest, food, and mental diversion*. The rest should sometimes be absolute; society and physical exertion as well as mental exertion, are sometimes to be interdicted. The error of over-exercising, of walking, running, climbing, rowing too much, is a very common

ne with this class of patients. Salvation from these ıaladies is not usually wrought by such violent proceures. The quality of repose—needed everywhere, but specially in this country—should be taught by the hysician and practised by the patient. The suggesion of Dr. Mitchell to keep these patients in bed for a ›ug time may sometimes be carried out with advanıge. Sufferers of this kind do well to study the art f taking it easy; their vacations should be spent ftentimes in elaborate inactivity, for muscle as well s mind requires rest. The food of the neurasthenic ıould be abundant and varied; meats of different inds, fruit, fish,* and milk where it agrees, being ıportant. There is no danger that nervously exausted patients will eat too much; there is every anger that they will eat too little. Even in nervous yspepsia frequent and palatable meals are to be en›ined; and sometimes it is well to eat a little a ozen or more times a day, never filling or over›ading the stomach, and never allowing it to be ıpty. Moderate lunches between meals I often adse, and also eating just before retiring or late in ıe evening. Better to eat too much, better to eat ıproper food, than to eat too little. The habit of ıting fat meat should be cultivated; and it is noteorthy that this class of patients, like consumptives, 're apt to dislike fat, and to find difficulty in digestg it.

Camping out, for those who understand the art or 're able to learn it, is to be commended most earnestly the best possible antidote at our command for the hysical evils of civilization. The clothing of the ervously exhausted should be much warmer than is ual, two thicknesses and even three thicknesses be›g sometimes required during the coldest weather. ea voyages and mountain air, or, what is better still some cases, an alternation of sea and mountain, is ıe of the very best adjuvants to other treatment. It well, for those who are benefited by both influences, spend a portion of their vacations at the sea-side ıd a portion in the mountains, and to go from one the other at short intervals.

Patients of this class need to be reminded that they ust not always expect immediate benefit from travel change of air. During their vacations they may be orse, or, at least, no better; the fatigue of motion ıd the discomforts of hotel and travelling arrangeents, and the irregularities of meals, may at first ıd for a long time mask the real recuperative forces ıat are working in the system, and produce discomrgement. But on return home the sedative and tonic fects of the vacation may be felt for weeks and onths and years. The after-effects of vacations, ke the after-effects of electrical and other treatment, 're worthy of much study.

These diseases are usually amenable more or less, ıd sometimes very decidedly, to mental therapeutics to the influence of the emotions of hope and special finite and limited expectation. The prognosis in ıy case is closely interwoven with the psychology of e patient. The man of feeble resolution, moderate tellect, and who sees only the dark things in life, ill remain an invalid where the man of grit and courage and hope would rapidly recover. The expectation that a certain course of treatment, whatever it may be, will have a certain effect in a *specified time*, has itself a tendency of the strongest kind to produce that very effect in that time. The science and art of exerting such definite and limited expectation so as to lead the patient by his own mind, step by step, towards recovery, requires much study and experience. The simple promise of recovery or general encouragement is not enough; there must be a limited and specified task for each day or week or month. Health, like a house, is to be built, not all at once, but brick on brick, one at a time. Specifically the patient should aim to get rid of a single symptom at a time, or to make a certain percentage of improvement each week or month. Certain functions, as sleep, appetite, and digestion, are wonderfully under the influence of definite expectation. Mental therapeutics may be systemically combined with any one or the other forms of objective treatment, and when so combined will greatly increase the quickness and number of the recoveries. I will illustrate these principles by a few cases:

1. HYSTERO-EPILEPSY AND SPINAL IRRITATION—VIOLENT AND VERY FREQUENT CONVULSIONS—RECOVERY.

Miss N., aged 18, was referred to me by Dr. C. L. Mitchell, under whose care she had been for some time, and who had treated her case with excellent judgment, though not with satisfaction. In speaking to me of the patient, he described her as an "*awful* case." I found on visiting the lady that the description was accurate. On the slightest irritation, mental or physical, she would go off into violent convulsions that would last all the way from five minutes to half an hour or more. An unpleasant remark, a trifling dispute, the slamming of a door, or any unexpected noise, near or distant, the entrance of a stranger, the lightest touch on the middle dorsal vertebræ between the shoulder-blades, and the contact of any hard substance against any part of the body, the shock of taking a dose of medicine oftentimes, would throw her into convulsions, which, according to circumstances, were repeated from twenty to perhaps two hundred times daily. In these attacks the eyes would be turned up and closed, the head turned back, and the arms would sometimes require to be firmly held to keep her from throwing herself off the bed. She would come out of the attacks as suddenly as she went into them, usually with a sharp cry. Ordinarily the attacks did not seem to exhaust her to any important degree, except when very frequently repeated. Immediately on coming out of an attack her head was as clear as usual, and she would go on with conversation that had been interrupted, as though nothing had happened. The excessively irritable state of the middle dorsal vertebræ evidently had some relation to the convulsions, and the query whether the pathological condition of the cord at that point was anything more than exhaustion was at once raised. After long study of the case, I became convinced that the pathology of the cord in this sensitive region was irritation dependent on exhaustion or myelasthenia, and not inflammation or congestion either of the cord or of its membranes. The ovaries were quite sensitive to pressure on both sides, as usual in all such cases. I believe that the pathology of the cord and of the ovaries was essentially the same. The whole spine, I should say, was more or less irritable, and there was persistent aching of the lower limbs, especially of the ankles. There was no proof of uterine trouble, or

* The delusion that fish is especially adapted to feed the brain, and it fish-eaters are therefore more intellectual than the average, is so erly opposed to chemistry, physiology, and to history, to common servation, that it is very naturally almost universally accepted by American people.
The delusion was started by the late Prof. Agassiz, who, impulsively t without previous consideration apparently, as was his wont at es, made a statement to that effect before a committee on fisheries the Massachusetts Legislature. The statement was so novel, so -sided, and so untrue, that it spread like the blue-glass delusion, and become the accepted creed of the nation.

any reason to suspect it. The appetite was tolerably good, and the bowels and vessels tolerably regular. The pupils were dilated, and there was much headache.

The patient was a school-girl, and apparently had been brought into this state through over-confinement, but there may have been other exciting causes of which I know nothing. The case was one of hystero-epilepsy, as described by Charcot—a combination of hysteria, and the symptoms of loss of consciousness during the attack is supposed to be diagnostic of epilepsy. There was no frothing at the mouth, and no stupor after the attacks, which, by the way, were far too frequent for pure epilepsy. The case throughout suggested hysteria far more than epilepsy.

The treatment at first used was spinal and central galvanization with very mild, non-perceptible currents and short applications, and in connection with the electricity, bags of ice and hot water to the irritable region of the spine, and counter-irritation by means of very small blisters. Very mild general faradization was tried once or twice, but did not seem to work well.

Bromide of potassium and sodium were also given to produce sleep and allay irritability; they had been used, however, for a long time before electrical treatment was begun, without producing important results.

After the patient had been treated by these methods three months, the improvement was so slight that I began to be discouraged; but the friends were confident that benefit had been received, and desired to persevere. I now returned to general faradization, which, when tried before, had not worked well. From that time the improvement was of a positive, cheering character, although there were frequent relapses. Bromide of camphor was used to a certain extent, and with apparently good effects. Calabar bean was tried and abandoned. For the frequent and severe headache, caffeine worked admirably. I have already called attention to the value of caffeine in sick headache, and have given suggestions in regard to the manner of using it. The remedy I find to be useful in other forms of headache besides sick headache. In this particular case there was the feeling as of a band around the head, and great pain at times. Of the different forms of caffeine I prefer the citrate, since it seems to accomplish the desired results with a smaller dose, and more surely. I have not yet made up my mind in regard to the exact dose in which caffeine should be given, having been accustomed to pour it out in the hand, rather than to weigh it out. My present custom is to prescribe it in two-grain powders, with directions to repeat every half-hour until the headache disappears. The failures with caffeine are, I am persuaded, often due to timidity in the use of it. It is a powerful, but, in reasonable doses, not dangerous remedy. One case has been brought to my attention—the wife of a physician—where there was an idiosyncrasy that could not endure caffeine; but, as a rule, the only unpleasant effect it produces is wakefulness, and that is only observed when the remedy is given late in the day. When this remedy is given in a dose just adapted to the needs of the sufferer, it quickly and perfectly removes the pain in the head and the nausea. I have known it to produce this effect in less than fifteen minutes, even after the patient had been suffering a long time.

The use of caffeine in headache seems to me to be one of the most important of the special therapeutic advances of our time; it is a genuine and solid reality, the relief it produces being too speedy and too frequent to be accounted for by coincidence or mental influence. It deserves to rank just after chloral, bromide of potassium, hypodermic injections, and electricity. Its superiority to guarana is very decided. Caffeine, it will be remembered, is the active principle common to coffee, tea, chocolate, and guarana, and is preferable to the latter in the treatment of headache, not because it is more sure and speedy, but also because it is more convenient and agreeable, and is never refused by the stomach. Guarana must often be given in bulk, and withal, is not a little nauseating both in taste and odor. Sometimes patients throw it up at once. Various other modes of treatment of headache—such as electricity and carbonic acid, must be practically useless for the majority of cases, since they cannot be brought to bear when needed—that is, at the outset of or during an attack. It is better to give the citrate of caffeine just as the headache is coming on, but it may be given with success at almost any stage, and when the proper dose is taken it seems to take up pain and bear it away.

The relief derived from caffeine was so marked to the headache of the present case as to suggest the query whether the same remedy may not be used in other forms of pain besides headache, whether it may not be of service in the pain of spinal irritation (myelasthenia) and in general neuralgia and hay fever. Might it not be administered in small doses in inebriety, to sustain the nervous system after the habit of drinking is broken off?

In six months from the time treatment was begun the patient was at least half well, and in less than a year her recovery was practically complete. Throughout the year much tact and judgment were required in regard to her exercise. Slight over-exertion would often cause a relapse. It was long before she could stand or walk a step without bringing on convulsions; and when she was able to walk across the floor it was felt that a great triumph had been achieved. The advice I constantly gave was to underdo rather than overdo; to stop short always of fatigue; but to increase her walking distance each week or day by a few steps if possible. In the latter half of the treatment, the influence of special, definite, and limited expectation was utilized with very important results. The patient was having a number of attacks every week; she was told to make up her mind and to concentrate her efforts in the attempt to reduce the number of attacks to four weekly. To this suggestion she heartily accorded, and was rewarded by more rapid improvement than she had experienced at any previous time. Although she rarely attained her ideal in any week, she sometimes closely approximated it.

The treatment was so complex that it is impossible as it is unnecessary to assign to each of the various remedies used its own proper and peculiar share; but as far as I could judge from the immediate effects general faradization, central and local galvanization, ice and hot-water bags, counter-irritation, or special expectation, were the leading curative agents.

This case illustrates what can be accomplished under apparently hopeless circumstances by a persistent and simultaneous use of our best recognized sedatives—tonics.

In some cases faradization is borne better than galvanization, as in the following:

II. HYSTERICAL CONVULSIONS — HALLUCINATIONS — HYPERÆSTHESIA—RECOVERY.

Mrs. ——, aged twenty-six, I first saw in July, 187[illegible]. Two years before she had been hit in the back by a carriage pole while crossing Broadway, and had su[illegible]

fered more or less ever since from nervous symptoms. Hysterical convulsions came on at irregular intervals, and under various exciting causes. These convulsions were sometimes preceded by an aura, or indefinable sensation starting from the region of the clitoris. There had been over-use of the sexual organs, and the uterus was much engorged. This engorgement had been faithfully treated by her physician, but the ordinary remedies, local or general, were not well borne.

Even when there were no attacks of convulsions, there was excessive neurasthenia, with all the usual symptoms, all of which were much worse at the monthly periods. She was subject at times to various hallucinations; she would see spectres and all sorts and forms of living things, and hold sustained converse with subjective human beings. At one of my earlier visits, she observed, as I was leaving the room, "I see a man standing between you and me. I see him as plainly as I see you." On another occasion she remarked, that her arm seemed to be covered all over with insects. Hallucinations of hearing were not uncommon; she once distinctly heard a voice commanding her to get out of bed. During one attack of nervous depression, she described her sensations to have been like "acres of fire rolling up and down the spinal cord."

I began treatment with mild general faradization, then tried central and local galvanization, and as these methods did not seem to work well, returned to general faradization, which was kept up until she substantially recovered. In connection with general faradization, local faradization of the uterus was used, and both methods answered each their purpose. The patient improved in a most satisfactory way, despite certain mental difficulties that caused occasional relapses. Although so sensitive to many other remedies, she bore faradization in large doses, and with only good effects. The improvement continued long after the treatment was discontinued; and now for eighteen months she has been in perfect good health.

In the above case the psychology of the patient was on my side; she was naturally hopeful, cheerful, and was resolved to get well. The hygiene of the patient was managed by her physician with great skill and judgment. She was never allowed to overdo, but was cautioned always to husband her strength, and to exercise only within proper limits.

The disposition to relapse observed in both of the above detailed cases, is a characteristic feature of the family of diseases to which it belongs. It is a feature common to these ten diseases — hay fever, inebriety, spinal irritation, nervous dyspepsia, neurasthenia, physical hysteria, and general neuralgia, cerebral irritation, pathophobia, and sick headache. These relapses do not usually prevent ultimate recovery, and should not dishearten either physicians or sufferers.

The following case would formerly have been regarded as hypochondriasis, and the patient would have been described as simply "hyped." The majority of physicians even now employ that diagnosis. It represents a peculiar phase of morbid fear.

III.—AGORAPHOBIA (FEAR OF PLACES) OF LONG STANDING AND PECULIAR SYMPTOMS.

A gentleman under middle life had for very many years been annoyed by a morbid fear of going across squares, or at any considerable distance from stores or shops. He must have some place of ready refuge near at hand, where, if the need should arise, he could flee at once. To be in the neighborhood of dwelling-houses gives no sense of protection, because it would be impossible to enter them without the delay of ringing the bell and waiting for the servant to open the door. Stores and open shops can be entered instantly; however, he feels secure when riding up Broadway, but very insecure when riding up Fifth Avenue. He never has occasion to take refuge in any shop or store or residence; he does not faint, as he apprehends he may, nor does he ever actually experience the need of any assistance; it is merely the consciousness that a refuge is near that he requires. At one time, when riding in a stage that left Broadway at Twenty-third Street, and went up on the right side of Madison Square, his alarm was so great that he cried aloud for a moment. Sometimes he finds that he is wandering too far from stores, and must turn round and run back as if for his life. He cannot visit the country, or even ride through Central Park; but is perforce shut up in the city, and is restricted to those portions that are devoted to business. To cross from one avenue to another through a side street is about as much as he dare attempt.

Yet another and still more unusual peculiarity of this case is, that wherever he goes he must take with him a number of bottles of strong or malt liquors. He has found by trial, when the feeling of alarm comes upon him, he can be relieved by drinking ale or porter, or gin in moderate quantities; consequently he carries samples of these liquors with him wherever he goes, every day and on all occasions, and is never happy unless he knows that the bag containing these comforters is at hand. He does not drink those liquors as he walks or rides about, any more than he enters the shops; it is the sense of security that he wishes—the consciousness that he can have them if he should need them. This gentleman attributes the origin of his unprecedented and incredible phase of agoraphobia to excessive tea-drinking for about twenty years. Since that time he has been off and on engaged in speculation, and so may have increased this special susceptibility. In most other respects his health is fair, although he is subject to cerebral hyperæmia, and has attacks of nervous dyspepsia.

The man who soberly details these symptoms is of more than average intelligence and culture, and analyzes his symptoms as coolly as though they belonged to another party, and moreover, is amused as well as annoyed by their peculiarities and perversities.

To call all this imagination is to beg the issue. In pathology, strictly speaking, nothing is imaginary. When we use the term imaginary in relation to disease, we mean subjective as distinguished from objective; but the former are as much realistic as the latter. A man who induces or maintains a state of disease through an excess of self-absorption by turning his mind upon himself through the emotions of fear and expectation, may be just as truly diseased as though he were knocked down with an axe.

Equally mistaken is the reasoning which assumes that sufferers of this kind can be cured through their own wills alone, and that the fact that they are so cured is proof of the imaginary nature of their malady. Functional diseases of all kinds may be permanently cured, and structural diseases may oftentimes be relieved through subjective or mental treatment; but such cures are no proof of the unreal nature of the diseases that are cured, for subjective treatment is as truly a fact as objective treatment, and works by law like the objective treatment of drugs and hygiene, and is oftentimes more effective, not only transiently, but permanently.

A man standing on the foot-bridge between the Brooklyn and New York towers and experiencing a sense of sinking in, of dizziness, or of utter despair,

as many do when standing on heights, is in a condition analogous to that of the patient whose case I am here describing; he is in a pathological state, induced subjectively through fear of falling, but it is a reality just as though it were induced by the actual shock of a fall. There are many who dread the very thought of going up a height, just as my patient dreaded to leave the vicinity of shops and stores. If a person thus sensitive in this special direction could be deceived successfully, if he could be led into walking across the foot-bridge under the delusion that he was walking on solid earth, he would not be troubled; it is the consciousness that he is on a height that causes him to grow dizzy and faint and despairing, and not the position itself, just as in the case of my patient it is the consciousness of being away from shops or alcohol that causes a feeling of alarm.

All cases of this kind illustrate the practical unity of mind and body. Inability to go up a height is the result of mental organization—a deficiency, no doubt, of certain mental qualities; but nervous debility, however induced, always aggravates this state. A man who can go up a height without difficulty when he is well, may find it beyond his power to do so when he is enfeebled by chronic nervous disease, although his muscular power is unaffected.

Likewise in agoraphobia, or fear of places, and in astraphobia, or fear of lightning, as I have elsewhere described it, the symptoms are the coupled results of mental organization and nervous susceptibility, either inherited or acquired. The treatment should therefore be both subjective and objective—sedatives and tonics, and nerve-food, rest and liberal nourishment, competing with mental discipline and diversion. To say to such patients, "Exercise your will-power, and you will be cured," is like saying to a small-pox sufferer, "Remove some pustules and drive out the fever and the fever-poison, and you are all right," or, in other words, "When you are well you are well."

The case under discussion has never taken treatment to any great extent, and has never been benefited by the little that he has tried. The malady is of so long standing that it seems to be a fixed fact, and yet it would probably yield if the patient could be persuaded to take the proper course and to persevere in it—if, for example, he would take tonic and sedative treatment, and would gradually discipline himself to take walks every day farther and farther away from shop and store, he might recover; in other words, if the patient was only somebody else, he would get well; but if he had been somebody else, he would not have been sick.

That morbid fear of places depends on nervous exhaustion, and may disappear, is shown by the history of the following case now under my observation:

NEURASTHENIA FROM SELF-ABUSE—TEMPORARY AGORAPHOBIA—NERVOUS FEVER AND PROFOUND SENSE OF EXHAUSTION—IMPROVEMENT.

A young man aged 24, has been a sufferer from severe nervous exhaustion for eight years. The evil habit to which his debility is attributed was began at the early age of eleven years. When sixteen years old he was confined to his bed by what, from his description, appears to have been acute nervous exhaustion, with fever. There have been times when he has been oppressed with a sense of profound nervous exhaustion, as though he would sink through the earth. This sensation is not exactly pain, but it is really more painful than pain; it expresses a low state of the nervous system that is not strong enough for positive pain like neuralgia or headache. There has been dilatation of the pupils, but no spinal irritation; some constipation, insomnia, and dyspepsia, but very little pathophobia, which is so common in such cases. Seminal emissions are at present not very frequent, and cause less than ordinary disturbance. Cases of this kind are too familiar to the literature of charlatanism, but altogether too much neglected in scientific literature.

In regard to these cases there are three important facts not always recognized.

First. It is not the simple act of self-abuse that makes the trouble, but the fact that it is begun early—before puberty oftentimes, as in the present case—and is repeated very frequently. In connection with this subject, Dr. Jacobi's excellent paper on masturbation in children is worthy of study.

Secondly. Individuals differ in their susceptibility to sexual abuse either in the natural or unnatural way, just as they may in their susceptibility to tobacco or alcohol. When, therefore, we are consulted by a case of nervous disease, and learn on inquiry that the patient has been indiscreet sexually, it is not always just or scientific to assume that these facts are in the relation of cause and effect. One man can smoke with impunity ten or twenty cigars daily; another man cannot take a whiff without suffering. A medical friend last year related me a case of a man in middle life, who for very many years had indulged several times daily in sexual intercourse or masturbation without any traceable injury, excepting perhaps a somewhat waxy look, which he might have had any way.

Thirdly. Sexual excess, when it injures, causes functional rather than structural trouble, and the effects, though quite severe, may disappear entirely. The notion that organic maladies, like locomotor ataxy, are caused by sexual excess, is quite wide of the truth. The law is that functional excess causes functional disease.

This young man was at one time troubled with fear of places, like the previous case, though less severely. He found it difficult to cross a square or to go far away from houses. At one time he was attacked on a ferry-boat, and found relief by leaving the cabin and going outside. I have known of three persons who for a time could not cross the ferry, their morbid fear taking this form; all of the cases recovered.

This young man had recovered of his fear of places before I saw him; the symptom disappeared as he grew stronger.

Under general faradization, central and spinal galvanization, combined with various sedatives and tonics, this patient has much improved and will no doubt substantially recover. His studies had been interrupted by his illness; he will now be able to resume them, or to go into business, as he may prefer. It is better that such patients be occupied; it is a mistake usually to take them away from their chosen pursuit, whatever it may be.

IV.—SPINAL IRRITATION—CAUSED BY OVER-PHYSICAL EXERTION—SPEEDY RECOVERY UNDER SPINAL GALVANIZATION.

A young lady, seventeen years of age, came under my care in the spring of 1876 with spinal irritation, induced by over-walking in shopping and sight-seeing trips with a friend. The patient was of fair, but not of firm health, was well without being strong, but was not anæmic. The tenderness was confined mostly to the middle lumbar vertebræ, but the middle dorsal between the shoulders were also somewhat affected. The accompanying pain in the back was easily made worse by walking about. There were no evidences of spinal congestion. It was the first attack of the kind

from which she had suffered, and she had been ill but a short time, and thus was unlike most of the cases, which are chronic and recurring.

Treatment by spinal galvanization gave relief at once, and after seven applications she was dismissed as cured. She has, I believe, remained well.

Spinal tenderness is a condition found in very many diseases—in spinal congestion, in meningitis, in spondylitis, in locomotor ataxia, and in progressive muscular atrophy. In ataxy and atrophy the spinal tenderness is found in the early stages usually, or at least in those portions of the cord where the degeneration is not complete, but in which the congested stage still exists. The existence of spinal tenderness is so far forth a good sign in these organic affections of the cord; the prognosis of those cases where it exists is better than of those cases where it does not exist. Spinal tenderness is not, however, diagnostic of the disease spinal irritation. *The diagnosis spinal irritation is only made where there is spinal tenderness; every symptom of inflammatory or structural disease of the cord, or of its membranes, or of the spinal column, is excluded.*

Next to headache, spinal irritation is the most common of diseases among American women. Thousands suffer from it all their lives off and on, without ever being directly treated for it. An attack may be brought on by over mental or physical exertion, by worry, by wakefulness, by excess, or by any exhausting influence; it may be reflected from the sexual organs, or from the stomach. Over-walking, as in the above case, is a very common cause. Long standing may excite the symptoms, but riding in carriages is an exciting cause of spinal and also of cerebral irritation far more frequently than is supposed.

Some persons in comparative health cannot ride at all, or but little, without suffering from headache or from ache in the back, or spinal irritation. I have under my observation four patients who are injured more by riding even in the easiest carriage than by any other form of motion. Two of them cannot ride a block without serious injury. Horse-cars are much easier than carriages, or even steam-cars; but one lady whom I have treated cannot ride any distance, even on the horse-cars, without aggravating her spinal irritation. In another case of neurasthenia both spinal and cerebral irritation are excited by a short ride, though not for several hours subsequently. Both cerebral and spinal irritation may be excited by the motion of riding.

Cerebral irritation is to the head what spinal irritation is to the spine. Its symptoms are tender points on the scalp, a sense of exhaustion, with inability to apply the mind for a long time, insomnia, and sharp, shooting pains through the head—or what is commonly called the "clavus hystericus." In spinal irritation there may be tender points the entire length of the spine, or only at certain points, and this general or local tenderness may disappear and reappear under treatment and exciting causes; just as in cerebral irritation, with which spinal irritation is often associated, there may be tenderness in nearly all parts of the scalp or only on the vertex, where there is sometimes a hot, burning feeling that is relieved by pressure.

In cerebral irritation the jar of walking sometimes makes the condition worse; even riding in the horse-cars is sometimes unendurable. Patients of this kind find great difficulty in being transported from place to place.

The quite popular impression that these diseases are caused mainly or entirely by sexual diseases, and particularly by diseases of the womb in women, is not correct. Sexual disease is one factor, and but one in their causation. All of these ten diseases, including hysteria, are found in both sexes; some of the worst cases I have ever seen are males.

When created as the result of diseases of the womb, it is usually the less severe disease or displacement, and not from incurable conditions, as cancer, that produce the irritation. I have now under observation a case of very severe neurasthenia with cerebral and spinal irritation, that was excited fifteen years ago by a ruptured perineum, uterine engorgement and displacement—here followed an immense array of nervous symptoms.

Sunstroke and cerebro-spinal fever are likewise not uncommon causes; a few years since I published a number of cases in illustration.

That the sexual apparatus and its function have on the whole much to do with these diseases in both sexes, I am free to allow. A gentleman who has long been a sufferer from hay fever, and who has attacks, as many people do, at all seasons of the year, but especially in the summer, tells me that sexual intercourse is with him one of the most common of the exciting causes. I saw him in the midst of an attack which he said had been brought on in that way. That the sexual factor is a powerful one is suggested by the fact that in both sexes these diseases are most severe and distressing during the period of sexual activity, between fifteen and forty-five.

Progress of Medical Science.

Podophyllin in the Treatment of Hepatic Colic.—In a paper published a few months ago in *Lo Sperimentale*, Prof. Bufalini reported two cases of severe hepatic colic, that were cured by the use of small daily doses of podophyllin. The first case was that of a woman, 45 years of age, who had suffered for a long time from violent attacks of hepatic colic. Her only relief was obtained from the use of active purgatives, which would cause the discharge of large calculi. An enteritis finally set in, which compelled her to stop the use of purgatives. Prof. Bufalini then ordered small doses of podophyllin (gr. one-sixth per diem), and both the hepatic colic and the intestinal catarrh rapidly disappeared. The use of podophyllin was continued for a year, and during that time and the two years that have since elapsed, the colic did not return.

The second case was that of a lady who had suffered for over two years from violent attacks of hepatic colic, and frequently passed calculi. All the usual methods of treatment had been tried without benefit, but the use of one-sixth of a grain of podophyllin per diem was soon followed by a cessation of the attacks, and gall-stones were no longer passed. The use of podophyllin was after a time discontinued, and for eight months afterwards the health of the patient continued good; the attacks of colic then returned, and calculi were again found in the fæces, but on resumption of the treatment they disappeared almost immediately.

To these cases Dr. Mercadié adds that of a lady, who suffered for a long time from intensely severe attacks of hepatic colic, that were repeated two or three times a month. He had been unable to do more than relieve her by injections of morphine. He finally ordered a small dose of podophyllin to be taken every night, and since the treatment was begun (two months ago) no attacks have been experienced. During the first fifteen days of this treatment the stools were examined, and several times were found to contain calculi. —*Gazette des Hôpitaux*, July 7th.

Acute Fatty Degeneration in Infants.—In the *Archiv für Gynäkologie*, B. x., H. 3. Prof. Hecker relates a case of acute fatty degeneration in a new-born infant. The mother was 32 years old, unmarried, and pregnant for the sixth time. The child was a male, and breathed well, but its skin had a greenish discoloration, as if from decomposed liquor amnii. It died at the end of fourteen hours. At the autopsy the lungs were found expanded, but there were numerous subpleural extravasations, and the organs were filled in all directions with hemorrhagic infarctions. The pericardium presented ecchymoses, and the tissue of the heart was friable. The liver was of normal size, but of a deep yellow color, and its cells showed advanced infiltration with fatty molecules, which were found also in the heart and kidneys. The author considers this case confirmatory of the views of Buhl (*Klinik der Geburtskunde*, Vol. 1, 1861), who holds that acute fatty degeneration in children has very definite characters, somewhat analogous both to acute yellow atrophy of the liver and to the effects of phosphorus poisoning.

The author relates a second case somewhat analogous to the above. A female child was born at full time, on October 28, 1876, whose skin had a dirty yellowish tint, and was covered with petechiæ about the size of a pin's head, especially about the face, but well-marked also on the buttocks and lower extremities. The mother was a primipara, but the labor had been normal, the first stage lasting twenty hours, and the second one hour. The child died on the fourth day. At the autopsy, extensive extravasations were found between the muscles of the left side of the neck; there was considerable effusion of blood tearing up the cerebellum, and the whole spinal cord was surrounded with blood. The liver was of fair size, but tinged yellow. The heart and lungs showed numerous ecchymoses, and there were effusions of blood, without lesion of the mucous membrane, in the intestinal canal. On microscopic examination the liver, heart, and kidneys were found to have undergone a moderate degree of fatty degeneration. The spleen was enlarged. The proportion of white to red corpuscles in the blood was about one to six, hence there was a certain degree of leukæmia. Both the mother and father of the child appeared to be in perfect health. The author remarks that Gerhardt has stated that cases of leukæmia are not very uncommon in children, and have been observed even at the age of eight or ten weeks, but he believes that no congenital cases of the disease have hitherto been recorded.—*The Obstetrical Journal*, July, 1877.

Treatment of Nasal Catarrh.—Dr. Hartmann, of Berlin, recommends the use of Politzer's method for distention of the middle ear, in the treatment of acute nasal catarrh. By the compression of the air in the nasal cavities, the collected secretion in the frontal sinuses and other cavities opening into the nasal fossæ is forced out, and the pains and other disagreeable sensations in the head are thereby greatly relieved. In order to prevent any undesirable effects on the middle ear, the external auditory canals should be closed with the fingers, whereby a too forcible driving outwards of the drums is prevented.

In non-syphilitic ozæna, Dr. Hartmann believes ulceration of the mucous membrane to be very rare, the bad smell being dependent on decomposition of retained secretion. He also believes that the great dilatation of the nasal cavity, which is very frequently found on one or both sides in cases of ozœna, renders the removal of the secretion difficult, and favors its stagnation. Where douches or injections cannot be used, he recommends the use of a small brush, fastened at the end of a flexible wire, to remove the tenacious secretion.—*Memorabilien*, Heft 6, 1877.

Aneurism of the Carotid Cured by the External Application of Electricity.—Prof. Pereira Guimaraez, of Rio Janeiro, reports this case. The tumor had existed about a year, and had grown very rapidly. It extended from below the clavicle to the upper border of the thyroid cartilage. Ice was kept constantly applied to the tumor for three weeks, but it did not produce the slightest effect. On October 20, 1874, the first application of electricity was made. The two electrodes of an electric machine were placed on the surface of the tumor, and moved about from place to place. The current was used as strong as the patient could bear it, and under its action the sterno-cleido-mastoid contracted forcibly and painfully, thereby causing a diminution in the size of the tumor. The application was continued, with short intervals necessitated by the pain, for ten minutes. The sittings were repeated at intervals of two or three days. After the fourth, the tumor was noticed to be smaller, but there was some local inflammation, which, however, yielded in two days to the application of ice. After this two more electrical seances were held, both of which were followed by inflammatory symptoms that readily yielded to the application of ice. The aneurism gradually became smaller, and its pulsations grew more and more feeble. On November 22d the tumor was reduced a third in size, and the patient was allowed to leave the hospital. He at once resumed his former avocation—that of a porter—and was soon able to carry even heavy loads on his head without inconvenience. In the beginning of 1876 the tumor was reduced to a hard, flattened, circular nodule, about as large as a penny.—*Gazette des Hôpitaux*, July 14th.

Acute Rheumatic Thyreoitis.—On June 7th a young man, who had been suffering for a long time from articular rheumatism, was admitted into the Charité, in Paris. The disease then affected chiefly the knees, hands, and shoulders. Auscultation revealed the existence of endocarditis. Two days after his admission, he was seized with high fever and violent headache, and complained of a painful sensation in the anterior region of the neck, which was increased by the movements of deglutition and of rotation of the head. During the following night the thyroid gland swelled, and attained such a size that, at the time of the visit of Prof. Vulpian on the next morning, the patient was scarcely able to swallow his saliva; he complained of very severe pain whenever the head was moved, or the front part of the neck pressed with the hand. An emetic was ordered, and on the following day the pain had entirely disappeared. The lateral lobes of the thyroid were still somewhat enlarged, but the redness, heat, and abnormal tenderness had all disappeared.—*Gazette des Hôpitaux*, June 25th.

Removal of the Remains of Monthyon.—The mortal remains of Monthyon, the great philanthropist, which reposed under his statue in the peristyle of the old Hôtel-Dieu, in Paris, have been removed to the church of Saint-Julien-le-Pauvre, where they will remain until the monument in the new Hôtel-Dieu is completed. During his life Monthyon made many useful endowments, and at his death he left the bulk of his immense fortune to the hospitals of Paris.

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THE FALL AND WINTER COLLEGE TERMS.

THE advent of the Fall season brings with it the usual activity in medical affairs. Societies resume their sessions, colleges commence their regular lecture terms, and the hospitals become once more peopled with students. To the young man who starts out to study medicine, the time is full of interest and fraught with anxiety. The choice of the proper medical school, of the proper preceptor, and the counting of the cost thereof, are matters which naturally engage his most serious attention. There are so many controlling circumstances which must naturally govern individual cases, that it would be impossible to lay down any absolute rules for guidance; still there are some general principles which should govern the course of every student, to which it may not be amiss at this time to refer.

We have so often referred to the necessity of preliminary education as one of the necessities in commencing the study of medicine, that it would be a culpable omission of a duty we owe alike to the profession and the student not to allude to it in this connection. Every sensible young man should know that his chances of success are ten to one in favor of a liberal education, and in the desperate struggle among first-class men already in the profession these chances are not to be lightly considered. But this point is now so well established that it has become an axiom, and is really beyond the necessity of argument.

There have been examples of poor young men who have become leaders in the profession, and who during their pupilage supported themselves by manual labor. This is very praiseworthy, but, as a rule, it is a very foolish proceeding, and should be discouraged. Any one who invests all his pecuniary capital in the mere study of medicine, with any hope of a decent return within a reasonable time, deserves commiseration from the start. The fact that some succeed in spite of these obstacles is only a circumstance in favor of the individual rather than an argument in favor of a principle. But as each ambitious youngster believes himself an exception to any general rule of failure, we suppose that there will always be a certain proportion of this class in every school, and a certain proportion of melancholy failures in the end.

Scarcely second to these considerations are those which should govern the choice of a school. All other things being equal, the college which offers the greatest facilities is the best. The question is one of kind as well as of degree. As a rule, the institutions in large cities are the best. They command the best talent, are more subject to the purifying influences of "a generous rivalry," and are consequently anxious to tempt the student with extra advantages. Although this is the rule, there are not a few colleges in out of the way towns whose special qualities of teaching coax students from far and near to take advantage of them. But the scarcity of clinical dissection material is a great drawback, and the plentiful supply of both in metropolitan centres needs scarcely to be mentioned as inducements in favor of the latter.

Another point worthy of a passing reference is the chance of obtaining the best talent in the larger schools. So much depends upon the popularity of a professor with the students, that it is one of the elements which govern his appointment. No first-class medical college can afford to advertise any teacher who is unsuccessful or unpopular. Indeed, some of the larger schools have wisely adopted the plan of obtaining the best talent by inviting competition in lecturing to the students—the teacher who habitually draws the largest audience being sure in the end to secure a permanent appointment.

As all this is done for the benefit of the student and through him for the college, the chances are always in favor of the institutions that can command such competition and secure such teachers. But the best of schools avail nothing when neither sufficient time nor system is taken to pursue the requisite studies. This leads us to say a word in favor of all those institutions that allow ample time to pursue a properly graded course and provide for stated examinations as shall insure a compliance with these conditions.

The choice of a preceptor does not amount to a great deal one way or the other. At best he is usually but a figure-head who certifies to the time when his pupil commenced the so-called study of medicine, and also to the moral character of said pupil, both of which, especially the latter, are of the greatest importance in securing a diploma from the faculty. The office preceptor is in reality getting to be more and more of a myth, and his name upon the college catalogue or the certificate of time of study, etc., is a mere matter of form to cover the provisions of the college charter. As an instance of the truth of this, we call to

mind the fact that a leading medical college of this city accepted the certificate of a preceptor who lived in Colorado, while his pupil studied medicine in New York, and when at home resided in Syracuse. The progressive student of to-day does not need to be told that the so-called "quiz," either by specially trained examiners, or better still, by members of the faculty themselves, practically does away with the occasional dull recitals in a village office, while the hospital advantages of a large city no longer makes it necessary, for the mere sake of occasionally seeing a private patient with the "old doctor," to become office-boy and ostler for him during the greater part of the year.

SANITARY INSPECTION OF PUBLIC SCHOOLS.

THE Board of Health, in compliance with a resolution from the Board of Education, has made a sanitary inspection of the school-buildings of this city. As a result, sixteen of these have been found wanting in sanitary requirements, and have been referred back to the Educational Board for action. We cannot resist the conviction that this will probably be the end of the matter. It is well known that the Board of Education has been adverse to sanitary inspection in every form, and has during all the time the matter has been under discussion defiantly maintained that it was capable of looking after its own affairs, of which it claimed this sanitary inspection was one. This is past history; what the future will be is of course purely inferential, but we believe that there is very little chance for reform. The resolution asking for sanitary inspection was ostensibly a bid for public favor, and as an offset to the defeat of the sanitary school bill, which was thought to be a reasonable measure by every one else save those composing the Board of Education. The health bureau is merely asked for recommendations, and when these are made they can be accepted merely in the light of official courtesy and filed accordingly. Beyond this nothing can be done save by the pleasure of the Educational Board, as that body alone has the power to enforce any regulations either for the mental or physical well-being of the children. Judging the future by the past the outlook is discouraging. What is the use of making recommendations without the power of enforcing them?

ABUSES OF THE PROVIDENT SYSTEM.

THERE has been considerable complaint in Great Britain concerning the mismanagement of the provident dispensaries. As might have been expected, there are numerous fraudulent concerns of small capital, and less character, which pretend to minister to the wants of their patients for so much *per capita*. The fees are neither so large as the out-door department of the New York Hospital, nor is the stock as high, but the principle of management is the same; that is to say, any patient applies who chooses, pays his pittance, and receives medical advice. There is a slight difference, however, in that the physicians in these two-penny shops are the stockholders instead of a board of reputable trustees. Whether it is due to this fact or not, certain it is that many cases of neglect have come to light, some of which have been the subjects of inquiry before a coroner's jury. The question is whether there is not more or less danger of want of care in all cases where patients are crowded upon the attending physician, and where the average fee for each patient is so nominal as to be unworthy of consideration in connection with the amount of attention which any given individual may receive. Although such a state of things is to be deplored, it is one of the inevitable results of no pay or a poor pay system. That the latter imposes more obligations than the former, may be an argument in favor of provident concerns against ordinary dispensaries; but, judging from the experiences abroad, there is, at best, no very flattering hope of reaching a system that is either perfect or effective.

Correspondence.

THE MICROSCOPE IN THE DETECTION OF CRIME.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The attention attracted to this subject, by recent controversies growing out of the application of the microscope in criminal trials, renders any information valuable that may tend to elucidate the several questions at issue. Until very recently it has been accepted as a positive fact of science that the red corpuscles in human blood are so much larger than they are in other animals that a specimen of the former could be identified by reference to their diameter alone. This opinion is still maintained by prominent microscopists, although not so decidedly as it once was. One of its most eminent advocates states his view as follows: "Although it would be scarcely proper to swear positively that a given stain on the clothing of a person on trial for murder is human blood, and not that of any other animal, yet, as between man and any specified animal, such as a hog, an ox, or a rabbit, an expert may swear with certainty." The point here is that a person indicted for murder usually accounts specifically for a stain by stating the circumstances under which it was acquired, and that if the stain can be sworn not to be from the particular animal to which it has been attributed, a jury is justified in the presumption that it is human blood. In this case, however, which is the most common aspect of the subject in trials for murder, it is evident that the uncertainty is still such as to admit of the existence of an honest doubt; for, although the explanation of the accused may have been completely disproved, the theory of the prosecution is not thereby demonstrated. In a word, the explanation of the prisoner that he has recently slaughtered a pig or a calf may be overturned by the statement of an expert that the stain on his clothing, or upon the knife or other instrument, could not have been produced in that way; and yet, unless the expert can positively state how it was produced, a necessary link in the evidence is still wanting. One case will illustrate the kind of evidence that the mi-

croscope has to offer in trials for murder. A woman in England was arrested for the murder of a little girl, and a blood-stained knife was produced by the prosecution, with which the deed was supposed to have been done. In the state of microscopic science at that date, the expert pronounced the stain to be human blood. This was probably uncertain; but when it was proved that the victim wore a tippet manufactured from a certain fur, and minute sections of the hair were identified, incorporated with a stain, the theory of the defence, which accounted for the blood by asserting that the murderess had recently used the knife to dress a rabbit, was not only broken down, but the counter-theory was fully demonstrated; for there is nothing in microscopic science which is more absolutely exact than the identification of hairs from different animals. Similar as rats and mice are, an expert would have no difficulty in determining to which animal a given section of a hair belonged. The evidence was thus full and positive in this instance; but had the conviction rested altogether upon the identification of the blood-corpuscles, the expert would not in the present state of the science have been justified in pronouncing positively.

The difficulty that lies in the way of doing so, independent of the fact that blood-corpuscles which have once been dried can never be accurately restored, consists in this: that there is no absolute standard of diameters that distinguishes red corpuscles of human blood from homologous bodies taken from the circulation of other mammalians. On the average the former are perhaps a trifle larger, but their diameter differs very materially in different persons in the first place, and in the second, the variation is very considerable in the same drop of blood. I have in my possession fifty-one slides of healthy blood, taken from persons of different temperaments, and fully illustrative of the extreme variations in diameter arising from this source alone. My observation has been that the red corpuscles are both larger and more numerous (as compared with the white ones) in healthy males than they are in healthy females; but, independent of this fact, the variation is very great in males of different temperaments. In glandular temperaments, for example, as contrasted with nerve temperaments, the red corpuscles are very considerably larger, less predominant in number, and transmit light less uniformly throughout the whole surface. In persons of dominant muscular structure they are again extraordinarily numerous as compared with other constituents of the blood; the apparent depression in the centre is more distinctly defined, and the cell-envelope appears to be appreciably thicker and rather less transparent. Paradoxical as the statement seems, in persons of predominant blood temperament I have never found the red corpuscles as large as in persons of glandular or muscular temperament. One slide among my specimens presents the best view I have ever had an opportunity to observe of the extreme variations in diameter that may occur in a single drop of blood. The smaller corpuscles in this specimen are 0.0035 millimetre in diameter, while some of the very largest are 0.0062—a range that is so very unusual as to be remarkable in its bearing on the important question under discussion. Two specimens in my possession, taken from the circulation of a monkey, present the following range: 0.0042 for the smallest, and 0.0065 for the largest. Taking a cabinet of slides, numbering in all seventy-two, and including specimens from the circulation of all the mammalia accessible in this climate, the average range is a little less perhaps than it would be in the same number of preparations of human blood, but not nearly ten per cent. less, so that on the whole I am bound to say that the difference in the diameter of the red corpuscles (taking a specimen preparation from the blood of a highly nervous person as one extreme, and a specimen slide of the glandular temperament as the other extreme), is greater in different specimens of human blood than it appears to be in comparing average specimens of human blood with specimens obtained from the inferior animals. Of course, all these peculiarities of behavior in the fresh state, that enable experts to determine with a high degree of certainty between specimens of fresh blood and to assign to each its proper origin, are conspicuously absent in most murder cases; the dried and shrunken corpuscles have to be specially treated in order to free them from accidental products, and to disengage them from the fabric or instrument, and the result is that neither their living diameter nor their original appearance can be ascertained with any such precision as to justify an expert in stating unqualifiedly that they are from human blood. I have in my possession seven slides, in the preparation of which I permitted blood-stains on linen, from seven different animals, to dry for three days; then cut small sections of the linen with the corpuscles still adherent, and mounted them in self-hardening balsam. The dog, the cat, the hog, the cow, the mouse, and the sheep are represented by six of the slides. The seventh is blood taken from my own finger. The balsam has of course rendered the linen fabric quite transparent, and the stains can be studied in detail under more favorable conditions than ordinarily occur in such cases. But even in this instance, if the seven slides had not been properly labelled at the date of their preparation, I should scarcely feel at liberty to pronounce upon them with such absolute certainty as would be required to satisfy a jury. In a similar manner, although it has long been held by German experts that the red coloring matter of the blood differs so uniformly in its crystalline structure in different animals as to enable the microscopist to identify human blood by this test alone, it has been found on later investigation that the crystalline elements of animal blood behave very differently under different conditions; so that this once implicitly-accepted criterion is as unreliable as the rest. Taken in conjunction with other forms of evidence, the judgment of an expert as to the origin of a blood-stain is no doubt often valuable; but it should be well understood by juries that there is nothing infallible about it, and that no man particularly familiar with all the sources of fallacy incident to such investigations would suffer a life to be staked on the accuracy of his opinion. The same remark applies to the testimony of the spectroscope under similar circumstances, although the latter is particularly delicate in detecting minute traces of mineral poisons when incorporated with animal tissues. Indeed, in examinations of blood, urine, and perspiration, and in the general work of diagnosing, I have often found the common pocket spectroscope a better detective of morbid tissue changes than my best two-millimetre glasses. The moral is obvious that in cases of poisoning the spectroscope will ultimately become our best and surest aid to correct diagnosis. In using Towles's solution of arsenic for intermittent fever on my own person, the spectroscope showed arsenic in specimens of urine within an hour after administration of the drug.

In the detection of adulterations in articles of diet, the microscope is very efficient. It is better adapted, however, to the discovery and description of diseased products, such as milk from diseased cows, than to the

detection of admixtures, although the addition of a small percentage of water to healthy milk produces identifiable changes in milk corpuscles. In the detection of forgeries, again, the lower powers of the instrument may be employed to great advantage. An imitated signature, for instance, although executed with ink of the same color as the original, usually shows a hesitating and somewhat jagged and irregular edge or margin of the strokes, due probably to the fact that the hand of the forger has to be consciously and carefully guided, the stroke consisting of a series of muscular impulses, in place of being the product of a single impulse. An artist acquaintance of mine executes at sight, with extraordinary rapidity, imitations of signatures; but, although the unarmed eye could not possibly detect the slightest hesitancy of the stroke, the forgery can be instantly detected by comparing the margin of an imitated letter with that of the same letter from a genuine signature.

FRANCIS GERRY FAIRFIELD.

CONTRACT PRACTICE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Though the meaning of the more important doubtful points in our "Code of Ethics" has been authoritatively explained, yet portions of the law continue to be violated. It will be remembered that in 1873 the "American Medical Association" assigned its judicial committee the task of a general revision of the "Code." The chairman of said committee, "being desirous of ascertaining how far there existed a desire in the minds of the profession to have the code changed, addressed letters of inquiry to thirty or forty men in different parts of the country who might be supposed to represent the general sentiment of the profession in their respective districts, from twenty-five of whom answers were received." Fourteen expressed entire approval of the code, six opposed any general revision, but suggested slight changes, while only five desired thorough revision. Allow me to now quote those portions of the committee's report which apply to the subject of this communication.

"To govern the matter of compensation, the code simply gives us the following general declaration: 'Some general rules should be adopted by the *faculty*, in every town or district, relative to *pecuniary acknowledgments* from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.' The aim appears to have been to allow sufficient variations in the rate of compensation to accommodate the varying habits and circumstances of different communities, and yet to bind each individual to an honorable compliance with the general rules established by his professional brethren. Such being the correct ethical principle, the difficulty consists in tracing and maintaining clearly its practical application. That the principle laid down in the paragraph just quoted is inconsistent with all contracts or agreements to attend individuals, families, companies, corporations, or any associations or institutions other than those of a strictly charitable character, for a specified sum per month or year, without regard to the amount of medical services that might be required in the time specified, no one can reasonably doubt. It seems to us equally inconsistent with the ethical rule to enter into a contract with a manufacturing company to attend their employés, or with a school to attend its patrons or scholars, for a fixed sum per annum, to be derived from the levy of a certain percentage on the wages of the employés, or on the tuition fees of the students; for, however plausible may be the humanitarian idea of securing for the employé and the student adequate medical attendance when sick, at the smallest average cost, the practical working of the system violates both the rule that compensation for medical services should be in accordance with the kind and amount of services rendered, and that every individual and family should be free to choose their own medical attendant without dictation or indirect restraint.

"These observations do not apply to a certain kind of contract service sometimes required in connection with the medical staffs of the army and navy, nor to the hospital tax on sailors in the marine hospital system, for reasons too obvious to require mention.

"One other subject requires a few moments' attention. There is a class of public charitable institutions, such as county almshouses, orphan asylums, etc., supported by public taxation. In many of the States the public authorities having control of such institutions have annually asked for bids from the profession, offering to award the contract for professional services to the one who should bid for the lowest pecuniary consideration.

"While as charitable institutions any member of the profession might offer his services to such of the poor inmates as might ask for them gratuitously, yet the idea of asking members of the profession to bid against each other for the pay for public professional services, is repugnant to every feeling of professional honor, and often productive of great injustice to the sick poor.

"The public authorities in all such cases should fix such just rate of compensation for the necessary medical services as they may deem best, and then appoint the best medical man who is willing to accept the compensation proposed. And we have no doubt but that a proper attention to this subject on the part of the profession would secure the necessary change.

"It is, however, very desirable to so manage all our pecuniary relations with the public, and especially with municipal and legislative authorities, that we avoid creating the impression on the public mind that the profession and its social organizations are little better than mere trades-unions, having for their chief object mutual pecuniary protection. After carefully reviewing the whole subject, your committee do not recommend any alteration in the present code of ethics. On the contrary, we desire to express the opinion that if every medical school and society would supply each graduate as he left the school, and each member initiated into the society, with a printed copy of the code, accompanied with the injunction that it be carefully studied, it would be productive of much good, directly to the profession and indirectly to the community."

It is to be greatly regretted that, after such decision on the part of an authoritative committee, many physicians still exceed the law in regard to contract doctoring.

It is no rare occurrence for an incorporated business company to approach the physician with a list of its employés, accompanied by an offer of a certain periodic sum, in consideration of which all needful professional services, medicine, etc., are to be furnished said employés without any extra charge whatsoever.

By this arrangement, those employés who avail themselves of the benefit, consent to the deduction from their wages of a certain sum per week, month, or quarter, which amounts in aggregate are paid the doctor at stated intervals.

Married men may, in addition, include the attend-

ance upon their families by payment of a larger levy. In some instances obstetrical work and fractures are charged for extra.

Sometimes the physician himself makes the advance by approaching the manager of the company with specifications of the amount and character of professional service which may be obtained for a given sum per time stated.

Unfortunately this violation of the code—for such we must at present regard it—is not only indulged in by those whom we might suppose to be less conversant with its meaning, but also by many physicians who are active and honored members of regularly organized medical societies.

Indeed, the name of a highly esteemed and distinguished practitioner has been authoritatively mentioned in close connection with contract practice.

About two years ago the manager of a company employing a large number of workmen expressed himself as most desirous of having all medical attendance upon the employés and their families rendered by one or two physicians, in consideration of a certain sum per month. Having always regarded the bestowal of medical services by contract as unprofessional and degrading in its tendency, and knowing the action of the "American Medical Association" upon the subject, I discouraged the gentleman from resorting to the arrangement. I am confident that he has not since attempted to adopt such a plan.

Had I then been asked if physicians in good standing engaged in such service, I should have unhesitatingly replied in the negative, for at that time I thoroughly believed the bestowal of all contract service to be generally regarded as incompatible with the code.

If we may overlook the decision of the Judicial Committee, and the unanimous approval of said decision by the "American Medical Association," I can readily understand how a physician might bestow service by contract and yet not violate the *literal* meaning of the code. There are communities, *i. e.*, certain mining and manufacturing districts, where physicians receive but meagre compensation except by recourse to such means, and where the circumstances would perhaps excuse a departure from accepted methods.

If that part of the code relating to pecuniary acknowledgments does not forbid contract doctoring, then it is certainly the duty of every regular medical society within whose jurisdiction such practices occur, to see that they be conducted in a manner which shall not compromise the dignity and honor of the profession.

If, in certain localities, the profession find that only by contract they can secure compensation for services rendered employés of incorporated companies, why not bring the matter openly before its local medical society and decide upon a plan to adopt. Should said society sanction contract practice, let it also fix a certain sum per capita as a minimum price for the service. This valuation should be sufficiently large to secure the best talent in the community. This would put the question of cheapness in a minor light, and thereby relieve the so-called irregular practice of its most formidable objection.

P. A. HARRIS.

DOVER, N. J.

DR. DUBLANCHET, formerly house-surgeon in one of the hospitals in Paris, died recently of diphtheria, after less than forty-eight hours' illness. The disease was contracted while attending to a child that was suffering from croup.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Sept. 2, to Sept. 8, 1877.

NORRIS, B., Major and Surgeon. Granted leave of absence for one month. S. O. 186, A. G. O., Sept. 1, 1877.

MCCLELLAN, E., Major and Surgeon. Relieved from duty in Dept. of the South, and to report in person, without delay, to the Comd'g General Dept. of the Columbia, for assignment to duty. S. O. 185, A. G. O., Aug. 31, 1877.

GREENLEAF, C. R., Major and Surgeon. Relieved from duty in Dept. of the Gulf, and to report to the Comp'g General Div. of the Atlantic, for instructions with view to accompany the 3d Inf'y to the West. S. O. 188, A. G. O., Sept. 4, 1877.

SMART, CHAS., Capt. and Asst. Surgeon. To proceed at once from Camp Douglas, U. T., to Camp Brown, Wy. T., and report to Col. Merritt, 5th Cavy., for field service. S. O. 109, Dept. of the Platte, Aug. 31, 1877.

KINSMAN, J. H., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Gulf, and on expiration of his present leave of absence, to report in person to the Comd'g General Div. of the Atlantic, for duty. S. O. 188, C. S., A. G. O.

DEWITT, C., Capt. and Asst. Surgeon. Assigned to temporary duty at Fort Fred. Steele, Wy. T. S. O. 107, Dept. of the Platte, Aug. 28, 1877.

DEHANNE, J. V., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Concho, Texas. S. O. 153, Dept. of Texas, Aug. 27, 1877.

KING, J. H. T., Capt. and Asst. Surgeon. When relieved by Asst. Surgeon De Hanne, to proceed to Fort Concho, Texas, and report to the Comd'g officer for duty as Post Surgeon. S. O. 153, C. S., Dept. of Texas.

ROBINSON, S. Q., 1st Lieut. and Asst. Surgeon. Relieved from duty in the Dept. of West Point, and to accompany the 3d Inf. to the West. S. O. 186, A. G. O., Sept. 1, 1877.

DAVIS, WM. B., 1st Lieut. and Asst. Surgeon. Relieved from duty at St. Louis Barracks, Mo., and to report in person to Comd'g General Dept. of Dakota for assignment. S. O. 185, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending September 8, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Sept. 1	0	28	29	2	10	28	0
Sept. 8	1	24	30	3	4	35	0

THE LATE PROF. A. B. CROSBY.—Those who were not intimately acquainted with the late Prof. Crosby were astonished at the apparent suddenness of his

death. In the absence of more positive statements, the theory of apoplexy was accepted as most probable, and one which would reconcile itself to his robust appearance, florid complexion, and vivacious manner. It now appears that he had been suffering from Bright's disease for some time past, and that he was doubtless acquainted with his condition and foresaw the ultimate issue. We learn from Dr. Frost, who was his attending physician, and a part of whose letter appears in the Proceedings of the Medical Society of the County of Kings, that "Dr. Crosby was not known to be ill till August 1st by anybody but himself, and he only knew for four days before that he was unusually thirsty and probably felt languid. On August 1st, while listening to Dr. Peaslee's Introductory Lecture, he said that all the black-haired men on the back seats had spectacles on, and he also noticed trouble with vision for all objects a little beyond ordinary focal distance. The thirst increased so that as he lectured he was obliged to wet his mouth constantly. The urine was much increased in quantity—specific gravity, 1033; sugar, ten per cent.—Monday, 6th, he took a swim in the river; also Tuesday—an injudicious proceeding. Wednesday, 8th, he kept the house. Wednesday night symptoms not much changed. He passed urine at 8 P.M., again at 4 A.M. Thurday, but in small quantity, and again at 8 A.M. Soon after he grew comatose, and at nine, when I saw him, he could not be roused, and swallowed only till a little after ten, and died at one P.M. The lesion *distinctly* found on autopsy was with the kidneys. One of these I sent to Prof. H. R. Fitz, of Harvard College, and he reports kidney extensively diseased, scarcely a normal tubule present. . . . With the microscope an excessive fatty and granular degeneration of the tubular epithelium. Parenchymatous nephritis was evident, etc., etc." Dr. Crosby delivered, in 1873, an oration before the Kings County Society on "The Significance of Pain."

Famine in India.—The editor of the Madras *Times*, who is a member of the Relief Committee, writes under date of August 1, as follows: "The population in Southern India more or less afflicted by famine numbers 24,000,000. In the most favorable circumstances at least one-sixth of the people will die. The famine is immeasurably greater than was that in Bengal. Twenty-three people, in all, died of starvation in Bengal. In Madras, no camp of 3,000 rises morning after morning without leaving thirty corpses. In the interior the distress is most fearful. One gentleman passing down a valley in the Wynaad district, counted twenty-nine dead bodies on the road. A coffee-planter, seeking shelter from the rain in a hut, found six decomposing corpses in it. On any day, and every day, mothers may be seen in the streets of Madras offering their children for sale, while the foundling portion of the poor-house is full of infants found by the police on the roads, deserted by their parents. Since the famine commenced 500,000 people have died of want and distress. The first big tragedy may be expected in Mysore. In that province, indeed, information has reached me from Bangalore of two cases of cannibalism already.

New Test for Wine.—Under the name of "Oenokrine," a new test-paper, which, it is stated, will at once detect the presence of any artificial coloring matter in wine, has recently been introduced into notice in Paris. When the paper is dipped into pure red wine, it is immediately colored grayish blue, and becomes lead-colored on drying. On the other hand, when moistened with wine that has been artificially colored by fuchsine or other aniline substances, the test-paper assumes a bright carmine-red color; when the wine has been colored by ammoniacal cochineal, the paper becomes pale violet; when by elderberries or mallow flowers, bright green; when by logwood, the color of the husks of pressed grapes; when by Brazil-wood or scarlet grains, dirty yellow; when by indigo-extract, deep blue. The method of testing is very simple: a strip of oenokrine paper is left for about five seconds in pure wine, and is then well shaken to remove the excess of fluid, and laid upon a sheet of white paper, which brings out the color more sharply. A second strip of the test-paper is then moistened in the suspected wine, and laid along side the first, when any difference in the color of the two will at once become apparent. It is positively stated that even one hundred-thousandth of a part of fuchsine in the wine is sufficient to give the paper a light violet color, while a larger quantity brings out a bright carmine-red. Lainville and Roy, the discoverers of "oenokrine," assert that they have also discovered a method by which the fuchsine can be removed from the wine without injuring the latter.

Photographs of Bacteria.—The photographs of bacteria, which were prepared by Dr. Koch, of Wollstein, already famous from his investigations on anthrax, and sent by him to Professor Ferd. Cohn, have created a sensation in medical circles in Breslau. Dr. Koch has, after patient study, discovered a method of taking photographs, which not only confirm previous observations on these important organisms, but, as the photographic plate is more sensitive than the retina of the eye, also render manifest some hitherto unknown peculiarities. The photographs so far exhibited show specimens of bacteria, bacilla, and spirilla, and of many hitherto unknown varieties of spores.

The Plague.—In consequence of the extension of the plague to Bagdad and in Mesopotamia, the Civil Governor of Algeria recently gave notice to the Mohammedans in his jurisdiction,, that no more pilgrimages to Mecca will be allowed for the present. The interdict is not permanent, but will be raised as soon as circumstances will permit.

Anthrax Malignus in New Caledonia.—We learn from *Le Temps* that an epidemic of carbuncular fever has broken out in New Caledonia, particularly in the Isle of Pines, and has caused great ravages among the inhabitants, as well as among animals. The flies appear to be the most active agents in spreading the contagion. The epidemic is on the increase; at the date of the report the number of victims was already above sixty.

Polygamy among Savages.—A writer in the *Revue Scientifique* asserts that the universality of polygamy among savages may be accounted for by one evident, though it is perhaps not the only cause. With us, after infants have been weaned, milk remains for a long time an important and essential article of their food, and for this purpose we use cows' milk, etc. Tribes, however, which do not possess domestic animals, have no substitute for the mother's milk, and hence the children are not weaned until they are two, three, or even four years old. Now, as man and wife usually remain separate during the period of lactation, it follows that, unless the man have several wives, he will be practically a bachelor for a large portion of his married life. In Viti the parents of a woman regard the birth of a second child before three or four years have elapsed, as a public insult, which they feel called upon to avenge in a public manner.

Original Lectures.

LECTURES ON DISEASES OF THE HEART.

By AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Reported for THE MEDICAL RECORD.]

LECTURE III.

ENLARGEMENT OF THE HEART (CONTINUED)—TREATMENT OF VALVULAR LESIONS.

GENTLEMEN:—At the close of the last lecture we were considering the subject of enlargement of the heart, and the means by which its presence is ascertained. I gave you the rules for determining the boundaries of the superficial cardiac space, and also the boundaries of the heart itself. I also spoke of the direction in which you were particularly to look for enlargement, namely, downward and to the left, and spoke of the means by which you would be able to determine the degrees and kind of enlargement. The fact of enlargement and the degree is determined, as you may recollect, first by finding the apex-beat wherever it may be. Its normal position is in the fifth intercostal space, and a little within a vertical line passing through the nipple. The effect of enlargement is to lower the apex and carry it to the left. It may be lowered to the sixth, seventh, eighth, or even as low as the tenth intercostal space, and, at the same time, carried more or less to the left. You will please to bear in mind what was said with reference to overlooking the apex-beat, and considering an impulse above as denoting its situation. For, when there is considerable cardiac enlargement, we may have an impulse in all the intercostal spaces between the base and apex. Removal of the apex-beat slightly to the *left* may be due to hydroperitoneum, gastric tympanites, pregnancy, etc., but none of these causes produce *lowering* of the apex-beat. The lowering of the apex-beat and its removal to the left are very good criteria for determining the fact and degree of cardiac enlargement.

Another mode of determining the degree of enlargement is by finding how much the area of the superficial cardiac space is increased; and that is ascertained by percussion. In certain cases in which the chest is thickly covered with adipose, or the mammary gland is excessively developed, percussion is not as valuable a means for this purpose as auscultation of the voice. For instance, you will place the stethoscope upon the upper part of the chest and get the vocal resonance; then move the instrument downward, getting the vocal resonance each time it is moved, until you find it abruptly ceasing or greatly diminished, when you may be sure that you have reached the border of the lung.

We have then, in proportion to the amount of enlargement, the superficial cardiac space increased in area, as shown by percussion and auscultation of the voice; and, as far as percussion goes, there is increased degree of dulness as compared with health.

By what means are we to determine, in cases of enlargement of the heart, whether the hypertrophy or the dilatation predominates? Reference has already been made to this question, but it is not improper to again allude to the means employed, because of the important bearing which the answer to the question has upon prognosis and treatment. We determine first by palpation; that is, by the strength of the impulse given to the hand as it is placed over the precordium. In some cases, in which the hypertrophy of the ventricular wall is the leading element, the ventricular contraction is so strong that the heart can almost be held in the hand at each cardiac pulsation. We can judge of the strength of the muscular contraction of the organ by the sense of touch.

Another mode is to direct your attention to the strength of the first sound of the heart. For, in proportion as the heart is enlarged by hypertrophy, is the first sound prolonged and louder, and the booming quality is more marked than in health. In proportion as dilatation predominates, the muscular walls of the organ are weakened and the first sound is feeble; not infrequently weaker than the second sound, and at the same time is shorter. The booming quality is lost, and in place we have the same quality that belongs to the second sound; that is, it is valvular in character. There are other points which might be mentioned in this connection, but these may be sufficient for practical purposes if they are well employed.

TREATMENT OF VALVULAR LESIONS.

I will now ask your attention to the treatment of valvular lesions, with and without enlargement of the heart. We frequently find in practice evidence of valvular lesions either without, or with only very slight cardiac enlargement. What are the indications for treatment in cases in which valvular lesions are present, but have not led to enlargement of the heart, or at most only very slightly, and that in the way of hypertrophy? *There are no special indications*, and that is an important statement. It is not infrequently the case, when valvular lesions of the heart are discovered, that the practitioner feels it to be a very serious matter, and that it must be met correspondingly with injunctions regarding habits of life, and perhaps with regard to the use of remedies. There are certainly no indications for the use of remedies with the view of removing the lesions. These must be accepted as they are; and yet I have known patients to be placed under treatment in consequence of the vague and irrational idea that remedies might have something to do with diminishing the valvular lesion. But are we to ignore the lesions altogether? Not altogether; we are to take into consideration the possibility and the probability that they will increase. Although there are no symptoms, at present, indicating the existence of the trouble, and the lesion would not have been known, save by physical signs, the probabilities of increase of the lesion must be taken into consideration, and an endeavor made to forestall such increase; to render it as slow as possible. How shall this be done? We make the endeavor by giving certain directions which relate to the general regimen of the patient. In some instances, but this must needs be done with great discretion, it may be well to state to the patient that he has valvular lesion of the heart, as it may make him more considerate with reference to proper care for himself.

It is proper to advise this class of patients not to overtax the heart more than cannot be avoided, either by improper muscular exercise or great mental excitement. We should not go too far in our injunctions, as is too frequently done. It is not uncommon for physicians to overestimate the danger as regards the progress of the lesion, and to place restrictions upon the patient which are unnecessary, and which, perhaps, expose him to very great inconvenience. I

will give you the rule which I have adopted in giving these patients general directions.

With regard to exercise and excitement, it is not only proper, but advisable to say that such amount of physical exertion should be made as can be done with entire comfort. The patient will receive no harm from muscular exercise, if it simply be limited by the sense of comfort. Muscular exercise which does not excite the action of the heart so as to occasion discomfort is to be indulged in, for it can be done with benefit. The same rule holds good with regard to mental excitement. All mental excitement, if possible, should be avoided which increases the action of the heart to such an extent as to give rise to a sense of discomfort.

As a general statement, the amount of enlargement of the heart, and the kind of enlargement, are to be considered as criteria of the importance of valvular lesions. But before enlargement has taken place, it is an interesting point of investigation to form some idea regarding the amount of valvular lesion. The murmurs give us no definite indication, for the intensity of the murmur has no relation to the amount of lesion. We may have an intense murmur with a very small lesion, and. on the other hand, we may have a feeble murmur with a very extensive lesion. Is there any means by which we can obtain information concerning the degree of the valvular lesion, before the heart has become much enlarged?

We may obtain information by directing attention to the second sound of the heart as heard in the second intercostal space upon the left and right side of the sternum. Upon the right side of the sternum, in the second intercostal space, is the point where the aortic second sound is heard. The second sound heard in the second intercostal space on the left side of the sternum is produced mainly by the pulmonic valves.

The information regarding the degree of valvular lesion present is obtained by comparing the aortic second sound with the pulmonic second. First let us suppose we have evidence of valvular lesion at the aortic orifice, as shown by the presence of a direct or regurgitant murmur, or both. We wish to form an opinion as to whether much damage, if any, has been done to the aortic valves. We then compare the aortic second sound with the pulmonic second sound, and if it is found to stand in its normal relation with the pulmonic second sound, we may be sure that the amount of damage done to the aortic valves is not very great. In health the aortic second sound is somewhat louder, higher in pitch, and has more of the valvular quality, the short, clicking character, than does the pulmonic second sound. In proportion as the function of the valves is impaired by lesions, will the intensity of the sound be diminished, and if the aortic valves have undergone great damage the aortic second sound may be entirely wanting. We have then a ready way of determining to what extent damage has been done at the aortic valves.

Suppose we have mitral lesion, either obstructive or regurgitant, or both. We may form a judgment regarding the amount of regurgitation or obstruction by comparing the aortic second sound with the pulmonic second sound. In proportion as we have contraction of the mitral orifice, the left ventricle contracts upon an insufficient quantity of blood to fully dilate the aorta and its branches, the recoil of the arteries is less, the valves are expanded with less force, and there is a proportionate weakening of the aortic second sound as compared with the pulmonic. The effect, then, of mitral obstructive lesion is to weaken the aortic second sound. If the mitral obstructive lesion has led to enlargement of the heart, we have seen that the right ventricle is the part especially hypertrophied, and the hypertrophy of the right ventricle is represented by the intensity of the pulmonic second sound. There is, then, with mitral direct lesion, involving contraction at the mitral orifice, an abnormal relation between the aortic second sound and the pulmonic second sound, consisting in a weakening of the aortic and an intensifying of the pulmonic when hypertrophy of the right ventricle has taken place.

The same is true of mitral regurgitation. A less quantity of blood is sent to the aorta, the recoil of the artery is diminished, the valves are expanded, with less force than normal, and, as a consequence, the aortic second sound is weakened; and when the right ventricle becomes hypertrophied, the pulmonic second sound becomes intensified.

This is of practical utility in forming a judgment with regard to the extent of the valvular lesions.

We have seen that the first effect produced by valvular lesions of the heart is to produce hypertrophy, and such hypertrophy is conservative; it has a real value and advantage. If it were practical to diminish the hypertrophied condition, the patient would be placed in a very much worse condition by so doing.

As a general statement, patients with valvular lesion of the heart do not suffer much inconvenience as long as the hypertrophy, which follows, predominates. A patient with hypertrophy of the heart predominating may take considerable muscular exercise with advantage, but he should carry it only to such an extent as he can do without suffering the least discomfort.

When, however, the dilatation predominates over the hypertrophy, the symptoms to which I called your attention in a previous lecture are developed—such as dyspnœa, first upon exertion, next when at rest, and general dropsy.

We will now assume that there is evidence of dilatation of the right ventricle; that the patient cannot take but little exercise without suffering from dyspnœa in an extreme degree, perhaps is unable to assume the recumbent posture, and there is cyanosis with more or less dropsy. What are the indications for treatment? The heart may be beating regularly or irregularly; different cases differing in this respect without apparent reason for such difference. It is proper, if possible, to remove the dropsy. We usually endeavor to do this by the judicious use of hydragogue and diuretic remedies. In this way we may be able, perhaps, to relieve the patient of his dropsy.

We may also relieve the dyspnœa by the judicious use of certain measures. Opiates may sometimes be resorted to, but very carefully. Some prescribe ether preparations, and these often afford marked relief.

We can hardly expect to relieve the patient of dyspnœa, especially upon exertion, as we may expect to succeed in removing the dropsy. However, these symptoms claim palliative measures of treatment.

Now, as regards the heart itself. We may often, under these circumstances, derive great benefit from the use of digitalis, especially when the heart is irregular in its action. A feeble, irregular action of the heart is the condition which is most likely to be benefited by the judicious use of digitalis. It is not necessary to carry it to very large doses; ten or fifteen drops of the tincture may be repeated at rather short intervals, the object being to keep up the *continuous* effect of the drug. The effect frequently in this class of cases is to produce regularity of the heart

tion, diminish the frequency of the heart-beat, and crease its power, thus accomplishing the objects sired. Now, while this is being done, the great ject of treatment, other than the relief of special mptoms, is to improve the condition of the blood improving the general condition of the patient. other words, our object is to put the system in such condition as will best tolerate an affection which ust continue and increase. These patients, not inequently, are anæmic, and this condition of the ood always increases their distress and suffering; in ort, all the symptoms incident to cardiac disease. we can restore the blood to its proper condition, rhaps the patient may tolerate the cardiac affection ithout much inconvenience. If anæmia is present, e endeavor to restore the blood to its proper condin, not only by the use of chalybeates, but by the use such measures as will improve digestion, etc. The pital principle in the treatment of cardiac diseases to endeavor to improve the general condition of the stem, with the view of securing as much tolerance the affection as possible.

TREATMENT OF AORTIC LESIONS.

I pass now to the treatment of aortic lesions, which resents some points of difference as contrasted with ie treatment of other cardiac lesions.

We do not have dyspnœa, we do not have dropsy nless enlargement by dilatation has extended to the ght side of the heart. Hypertrophy and dilatation the left side of the heart, dependent upon aortic sions, do not lead to dyspnœa or general dropsy. hey involve distress which is described as palpitation a sense of discomfort referable to the precordia. he suffering may be very great, but it is not, properly peaking, dyspnœa.

Now it has been stated that in cases of aortic lesions, pecially involving free regurgitation, there is danger sudden death, and that fact is to be considered in ie treatment of this class of cases. Other things beg equal, the danger of sudden death is in proportion the regurgitation at the aortic orifice and weakeng of the left ventricle by dilatation.

What can be done to relieve the distress of the pant and prevent a fatal termination?

We may have here, as with mitral lesions, a feeble, regular action of the heart. Shall we employ digilis, as in the treatment of the same condition in conction with mitral lesions? There is a difference of inion with regard to the correct answer to this quesn. Some consider that this remedy may involve nger, and in this manner: if it has the effect of minishing the frequency of the heart's action, overing of the left ventricle is more likely to occur; nce the patient is exposed to more danger from ralysis of the heart, and thereby sudden death. On other hand, it is argued that by giving greater wer to the heart's action, notwithstanding the minished frequency, the patient is less liable to have er-accumulation of blood in the left ventricle. As as my experience goes, the truth lies between the extremes. I would use digitalis with a certain ount of reserve in the treatment of aortic lesions, it seems to me evident that in certain cases benefit llows the judicious use of the remedy. We can give ithout running the risk of producing much slows of the heart's action, and thus secure the tonic ct of the remedy without incurring the danger ch deters some from employing it at all. As reds other measures to be employed, the same general nciple is applicable as in the treatment of other ons. The general condition of the patient is to be improved as much as possible, especially with reference to anæmia. It has been justly said that "a lame heart needs good blood." Active muscular exercise or great mental excitement are to be especially avoided in aortic lesions in which there is evidence of free regurgitation at the aortic orifice, and evidence of dilatation of the left ventricle. Under those circumstances we should not hesitate to caution the patient, and perhaps it may not be imprudent in certain cases to intimidate the patient by telling him there is danger of sudden death unless certain prudential measures are observed.

Original Communications.

THE PREVENTIVE TREATMENT OF CERTAIN DISEASES—A NEW METHOD OF PROPHYLACTIC PRACTICE.

By EZRA M. HUNT, M.D.

METUCHEN, N. J.

The power which, through disinfectants or by other methods, we may exercise in preventing or limiting morbid action, is one of the studies which has the right to attract the most astute attention of the physician, the surgeon, and the sanitarian.

There are two facts thus far prominently before the profession, and accepted by a sufficient number of careful practitioners to entitle them to the closest investigation from us all.

I. The one is, that by the use of disinfectants, and especially by the use of the spray and of instruments which have been disinfected, we may prevent inflammation, and so render defensible and successful manifold operations which otherwise are of doubtful expediency. If openings into joints and various other exposures of surfaces are chiefly hazardous by reason of their exposure to the causes of inflammation and suppuration, and if these causes are set aside by the methods of carbolic exclusion, then a fact of no small import is in possession. Whatever may be the variety of opinion, it cannot but be recognized that disinfection of wounds in some form commends itself to the experience of very many surgeons. A large number, indeed, are accepting the higher faith of Lister as to the relations of germ-productivity to inflammation. Whether the result is secured by the exclusion of air, by cleanliness, by an action of presence, by a destruction of germs, or by some incompatibility of the disinfectant with the abnormal changes sought to be initiated, is a distinct subject of inquiry. But if the resultant fact of the prevention or arrest of morbid action is authenticated, it is a life and limb-saving discovery foremost in the present era of surgery.

II. The second fact prominently before us is that filth has such a relation to a class of diseases as really to characterize them as "filth diseases," and that the disinfection of the surroundings and voided secretions of these diseases is the important method of preventing their spread. This may perhaps be designated as the Simon view. The investigations of Dr. John Snow in cholera, and of Sir William Jenner in enteric fever, threw much light in this direction; but Simon and other pathologists would extend the observation "to every disease, whether nominally common or specific, in which the human intestinal canal is the seat of infected changes." They would include also such diseases as scarlatina, diphtheria, erysipelas, etc., which, for the want of a better term, are called zymotic. Water-pollution, air-pollution, ground-pollution, and

excremental pollution are regarded as the artificial fertilizers. It is claimed that disinfectants can so destroy the productivity of these disease-factors of filth as to tame or prevent disease.

Here again there are collateral questions intensely interesting, but not to be confounded with the question of result sought to be established. Whether each disease has its special fertilizer, whether definite combinations of filth can by chemical action or germ-productivity, either animal or vegetable, originate disease or give specificity thereto, these and other points pressingly invite investigation.

But if "common filth" incubates a whole class of diseases, or adds to their malignancy, and certain methods of outside management can so modify or abate this power as to annul or suspend it as a cause or promotive, we will at once apply it, although we cannot settle just now these other points.

Here again, facts as to limitation and prevention by the use of disinfectants have so far accumulated and have so far commended themselves to large numbers of practitioners as to lead us to feel that the antiseptic treatment of the surroundings of manifold diseases is a preventive and curative agency of the very weightiest concern in the practice of medicine. Those who come to realize to the full extent the best methods of preventing, limiting, or controlling disease by external appliances to surroundings, and who show by results what is actually accomplished, magnify the science and art of medicine to a degree that makes an era in its practice equal to this traumatic triumph in surgery.

III. We would add a third department of investigation akin to these, and equally worthy of the most enthusiastic and exact research. Can we not, by means of antiseptics or other medicaments, so deal with the human system itself as to render it either invulnerable or unslayable by some of the contagia? Are there not certain articles that can be introduced into the system which will negative the capacity of such a disease as scarlatina to incubate therein, or so accompany it with a modified condition of the fluids as to restrict its capacity for harm-doing and make the malign benign? May we not suspend or prevent the morbid action of the toxic by an infusion into the body of substances which will resist the zymotic or other action which is necessary to constitute the morbid success of the disease, and so interrupt its fructification and proliferation as to make it miscarry?

A person may have already contracted the small-pox, and yet the *after-vaccination*, if not too long delayed, interferes with the course of the infection, and in part aborts it. In other cases there is reason to believe that it entirely prevents, or, in other words, supersedes and suspends, although the small-pox contagion had the advantage of preoccupation. After a number of trials, it is my confidence that when a case of scarlet fever occurs in a family of children, all those who would be liable to take the disease from this case may be prevented from so doing, or have the severity of the attack greatly modified, if immediately placed upon prophylactic treatment.

The following most recent case will illustrate: E. M., aged seven years, was taken sick, and after one day of vomiting and high fever, had a bounteous eruption, and became seriously sick with scarlatina anginosa. His brother, a child of two years, had been fully exposed until the second day. He is a child weighing forty-four pounds, and so about fifteen pounds over the average weight of children of his age, and a bad subject for the disease. I at once placed him on a solution of chlorate of potassium, two to three grains in water three times per day, to which each time four drops of Squibb's Tinc. Chlorid Ferri was added. He was allowed regular diet, except fats and sugar, which were prohibited. It was directed that he have each day a bath strongly impregnated with carbolic acid.

He has escaped the disease. My trials have been confined chiefly to scarlet fever and diphtheria. When the case is not seen soon after the first exposure, the doses must be larger and oftener, and quinine in addition is indicated to forestall diphtheria. By a system of medication, by care as to diet and ablution, by the use of disinfectants to some extent in the room, and by exclusion after the case was fully determined, I have been so often successful in families of children and in private schools, in limiting the disease, that the fact has become recognized in my practice. I have not always been able to assure myself how far the result depended on one or on all these methods combined. Yet so often has real exposure occurred, I have come to attach more importance to the internal administration of certain preventives than to any other method, and to entertain the hope that a large number of diseases thus admit of limitation.

We keep in the air-entrances and the blood the presence of certain substances which we believe interfere with those fermentive or other changes essential to the incubation and permeation of many diseases. If only the effect can be produced soon enough, and prolonged during the prodromal period, the action of the disease toxic is suspended. While we think the remedies we have named most potent, yet salicylic acid, quinine, phenol, and most disinfectants have some agency. They must be so given as to be kept present in the breath and the system.

After what we know of inoculation and vaccination as modifying disease—of the power of age, of acclimation, and of the degree to which iron, chlorate of potassium, and various other articles resist the course of certain diseases, it is not a very wild excursion of hypothesis to suspect that by substances kept in the system for a time, we may temporarily establish similar deliverances from attack. If we can thus plac rioting contagion in durance, we make a grand stride in limiting and abating disease. We ask the attention of such members of the profession as will observe and record, and experiment accurately, to this investigation. When any one of the zymotic diseases occurs in one member of a family of children, let the others if they have been exposed, be placed on the preventive treatment, so that we may know how many who have been under treatment a week avoid the disease, and how many have it lightly. When, after the first case has recovered, there is possibility of infection from the house itself, the prophylactic treatment in diminished doses should be continued two or three weeks. If only we can direct attention more to the preparation of the individual for a disease, or if we can infiltrate the fluids or tissue with some antiseptic, catalytic or incompatible, as that the flying contagion finds unfavorable conditions for settlement, and makes a demonstration, a great progress is made in the science and art of medicine.

The fact that we know that in certain diseases the body has been made, in a very short time, unreceptive and uncongenial, so that the disease has either not located, or, if located, has disappeared, is enough to excite the greatest hope that there is a way of dealing with the body exposed to contagious disease, by which it may be rendered uninhabitable for contagion, or it find such uncongenial preoccupation as to have no chance for active virulence and viciousness.

Are there not opposing forces to disease in its initiative as well as in its declarative stages? Can we not so surcharge or pre-empt the individual as to nullify the toxic of disease, or so dilute or suspend it as to make it harmless?

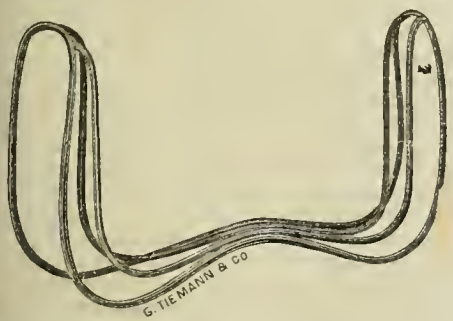
We place this directly alongside of the antiseptic treatment of surgery and the treatment of outside conditions of filth, and believe both thought and experiment point us to prodromal mastery over disease by an exact method of individual sanitation. If so, a discovery is made fraught with a great future. If not, attention is drawn to the preparation of the individual for disease in a way which may not be unprofitable.

A MODIFICATION OF THE SIMS SPECULUM.

By BLENCOWE E. FRYER, M.D.,

SURGEON U. S. ARMY.

Those of the profession who most frequently have to make vaginal and rectal examinations, and to perform surgical operations in these passages, have long since decided, we believe, that the Sims speculum, of all the numerous instruments, is the one which is most generally applicable for the purpose—the simplest and best. This is probably true, at any rate, as far as regards the conclusions of specialists in the matter. In rectal examinations there can scarcely be a question, by any one who has used the Sims after trying other forms of rectal specula, but that the former allows the most complete view of the parts, and the best facilities for operation; yet, in the rectal cases more especially (though it applies to the vaginal also), we have thought it would be still more advantageous if we could obtain at *a glance* a view of *all* the surface of the mucous membrane, and this is impossible with the solid instrument of Sims. In order, therefore, to gain the advantage we have mentioned, it occurred to



that a speculum of the Sims pattern, constructed of four or more wires (the one we use is of four wires), each wire one-eighth of an inch in diameter, silver or nickel-plated, preserving in every respect the outline of the Sims speculum, would be all that is needed, and we some time since had Messrs. Tiemann & Co. make for us a speculum of wire such as we have described, and which we find exceedingly convenient. The accompanying woodcut shows very well the construction of the instrument; no explanation is necessary.

With this instrument a complete view of all the parts can be obtained *at once*, while to get such a view with the solid speculum of Sims it is necessary (from the fact that the portion of the mucous membrane covered by the instrument is of course hidden from the eye) to glide it one-half at least of its width either way. In vaginal cases the same may be said; there too the *complete* view *at once* of all the mucous membrane, though rarely so often needed, is nevertheless at times required, and it is the more difficult as compared with rectal examinations—for in the former the pressure of the instrument is of necessity to be made more posteriorly, and gliding it far enough either way to obtain the view of the posterior portions is done at the expense of the retraction posteriorly, and of course with a diminution of the calibre of the passage-entrance of the canal, the loss following arising from the diminished amount of atmospheric pressure allowed to bear, which pressure, as is well known, is the essential factor in dilating the canals referred to, when a sufficient retraction posteriorly is had.

It may be objected, and reasonably, that with our modification there is a loss of light had in its use, from having less of the reflecting surface in the instrument; but we have not found this difference very material, and when on cloudy days we have had to make examinations, a reflector, such as is used as a frontal mirror in throat cases, has removed any difficulty from want of light.

It may be well to add for those who have never used the Sims speculum (and we know there are many who have not), or for those who have tried it and have been dissatisfied with it, that the proper position of the patient must be had, or the Sims instrument and its modifications are useless; with the patient in the correct position there can be no trouble. A very clear description of this position, with a good woodcut illustrating it, will be found in Prof. T. G. Thomas's admirable work on the Diseases of Women.

It is not of course our idea to suggest the wire instrument as a substitute for the solid speculum of Sims, but only as an addition to it, and mainly for such vaginal and rectal cases (in the latter it is obvious that it will be most frequently required) where a complete view of the whole lining membrane, and more especially of the posterior portions, is desired to be had at once.

Fort Leavenworth, Kansas,
August 31, 1877.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

DIFFICULT DIAGNOSIS—PROBABLE PHTHISIS—ABSENCE OF PHYSICAL SIGNS—DATA UPON WHICH THE PROBABLE DIAGNOSIS WAS MADE.

The patient's present illness, he said, had been of only about four weeks' duration. He had not been quite well during the last four years, the chief complaint being a "running sore" upon the ankle. About two months ago he began to have a slight cough, but did not feel sufficiently sick to remain in the house. During the last four weeks he had been getting worse, and noticed that there was a sore spot upon the left side, in the axillary region. At first it appeared like a small boil. At the end of a week or ten days the little elevation broke, discharged a small quantity, but had remained quite sore, and at the time of the examination there was considerable induration of the tissues surrounding the point where the sore first commenced. It did not feel like an enlarged gland, but

was apparently a mass of indurated tissue freely movable beneath the skin. He coughed considerable during the night-time, expectorated quite freely, and for about two weeks had raised considerable blood. His skin was hot at night, and the fever was followed by sweating. His temperature (noon) was 101½° F.; the skin was moist, and the pulse 100 and pretty full. His appetite was moderately good. If we were to judge from the morning temperature, there was no time during the twenty-four hours at which he was free from fever.

Physical examination of the Chest.—The peculiar percussion note heard upon the anterior portion of the man's chest was well worthy of special attention. It sounded as though there was very marked dulness upon the left side; it sounded a trifle dull upon the right side; upon the left side it was really very dull indeed, but it was *entirely artificial*: that is, it did not depend upon changes affecting the lung-tissue underneath. For, upon auscultation, the vesicular respiration over the region of this dulness was perfectly good, and although there was dulness there, it was the natural resonance in that particular person's chest. Posteriorly was found fair resonance upon percussion over the right side of the chest, but upon the left side there was present a noticeable degree of dulness at the lower portion, and beneath it were heard a few subcrepitant râles. Upon the right side the breath sounds were apparently healthy.

Neither the history nor the physical examination in this case were satisfactory. The history was of only two or three weeks' duration, began with a slight cough; there had been spitting of blood once, and there had been a form of hectic fever. If the man had not spit blood, it was thought that the idea of his having phthisis could almost be dismissed. The amount of blood was probably not large, although he said he had raised considerable; and yet the visiting physician believed that when even so slight a hemoptysis as recorded was followed by such a febrile movement, there was reason to acknowledge the possibility that the patient had phthisis, although there were present no physical signs whatever. In this case, although the physical signs of phthisis were not well marked, there were subcrepitant râles at the lower portion of the left lung, and a noticeable degree of dulness upon percussion. It was believed that the probabilities were in favor of the presence of some tubercular lesion of the left lung, but how extensive it was difficult to say. In addition, he had the inflamed patch of subcutaneous connective tissue under the left arm. Just how that began could not be told from the appearance of the sore. It might have commenced as an inflamed gland which went on to suppuration and discharge, and there were left the results of the sloughing process. But it was not usual for inflamed glands to be surrounded by such a zone of inflamed connective tissue, and it was also difficult to tell how much of the fever belonged to the suppuration of the subcutaneous connective tissue which was still going on. It was thought that the man probably had phthisis, but positive diagnosis was not made.

Now as to treatment. Although the diagnosis was not certain, yet the condition of the patient was quite positive, and the principal symptom was the febrile movement. It was a febrile movement having an ascertained character. It was more marked in the afternoon than in the morning, and was attended by sweating. The indication was, evidently, to endeavor to break this fever up, and for that purpose it was thought to be the simplest method to place the patient upon the use of aromatic sulphuric acid and the sulphate of quinine. He was, therefore, to receive

℞ Acid sulph. aromat.....gtt. xx.
Quin. sulph.....grs. v.

every three hours. The remedies were to be continued for several days with the hope that the temperature would fall under their influence.

VALVULAR LESION OF THE HEART—PROGNOSIS AFFECTED BY THE FACT THAT IT WAS NOT OF RHEUMATIC ORIGIN.

A boy, æt. 12 years, complained of what he called a "sticking in the two sides" after exercise. He said it was first noticed some three or four years ago, when he had been running after a wagon, and that he had had more or less of pain in the side, *with shortness of breath*, ever since that time. These symptoms had given him so much discomfort, and excited the anxiety of his parents to such an extent, that he had been taken to see a doctor, who told him he had heart-disease. He had never had rheumatism, nor had he had scarlet fever. Such was the history of the case; and then, as the chest was exposed, it was found that the cardiac impulse was quite forcible, that the area of cardiac dulness was somewhat enlarged, and that there was also a sort of thrill communicated to the fingers by the apex-beat. The heart-beat was regular. There was a very loud murmur with the first sound of the heart, heard with greatest intensity at the apex, but heard distinctly around the chest and behind. This murmur was evidence of regurgitation at the mitral orifice. There was also a loud murmur at the base, heard with the systole and transmitted into the subclavian arteries upon both sides. The boy then was suffering from organic disease of the heart, consisting probably in regurgitation at the mitral valve combined with some degree of lesion at the aortic orifice. These lesions had not produced any marked change in the cavities of the heart—that is, the ventricles were not dilated; but if any change had occurred, it was in the way of slight hypertrophy of the left ventricle. There were no symptoms of general venous congestion; there had never been any dropsy; there had been no cough, no hæmoptysis, no vomiting, and no trouble from attacks of pain. He was well nourished and his appetite was very good. The only way in which his heart troubled him was by giving rise to shortness of breath upon exertion. With reference to *prognosis* in such a case as this, it was regarded as very good for a case of cardiac disease. A great many children having such an amount of heart-disease, *and without rheumatism*, as this boy had, grow up and enjoy very good health. They carry the heart-disease, the valves work imperfectly, and yet the general circulation does not become so disturbed as to prevent good health; they simply have the liability to shortness of breath upon exertion. The prognosis with heart-disease in children, it was claimed, varied according as it depended upon articular rheumatism. When a child had had one attack of rheumatism it was liable to have others, and, if the heart became affected during the first attack, as it was very likely to be, every succeeding attack rendered the cardiac disease worse. But when heart-disease occurred uncomplicated, or independent of rheumatism, the prognosis was believed to be much more favorable.

As regarded treatment, there was really no special indication in the case except to regulate the boy's method of living, regulate his diet, and also the various functions of the body. Keeping him from school had been a wise precaution. It would be beneficial could he be sent to the country during the summer

where his general health would probably be so improved that he could enter school again in the fall and continue through the winter. If his appetite became poor, it must be restored by the use of appropriate remedies, perhaps iron and quinine, and iron would be indicated if he became anæmic. If he lost flesh, he should take cod-liver oil. As he now stood, at the time of the examination, he was in a very good condition, and the chief object was to maintain his nutrition.

VALVULAR LESION OF THE HEART—PROGNOSIS SPECIALLY VARIED BY THE HABITS OF THE PATIENT.

A male patient, æt. 35 years, was not aware that he had any trouble until four or five weeks ago, when he "felt something different from usual upon the left side of the body." Upon closer examination it was found that the cause of complaint was a feeling of "pain and oppression," beginning in the precordia and passing up into the left shoulder and down into the left arm. The suffering caused in this way was sometimes so intense that he was obliged to get out of bed, and had recurred at intervals of two or three weeks. There was no sense of impending death. He did not suffer from shortness of breath, but had palpitation when he walked fast. He had not had rheumatism. He had suffered more from this sense of discomfort and pain since he had been told that he had heart-disease. On physical examination, it was found that the heart was considerably enlarged, that it had a pretty forcible impulse, and that there was a loud double murmur at the base. There was regurgitation at the aortic orifice, and some rigidity or some roughening of the aortic valves. With the trouble at the aortic orifice, he also has dilatation with hypertrophy of the left ventricle.

It seemed, then, that the only way in which this man's heart troubled him was in the production of a feeling of oppression and discomfort upon the left side of the chest and occasional attacks of severe pain, beginning over the upper part of the sternum and passing across to the left shoulder and then down the left arm; those attacks of pain, however, were not frequent. The most that troubled him was a consciousness that the left side of the chest did not feel perfectly well, and he had felt worse since he had become aware that he had heart-disease. It was believed that in such cases as this the physician is justified in not letting the patient know that he has heart-disease. It was also said that in such cases but little remained to be done in the way of *treatment*, for the man felt very well, except with reference to the sense of discomfort on the left side of the body. The only thing suggested was to be very careful regarding diet and drink. The heart itself was perhaps too much hypertrophied, and beat more forcible than was necessary to compensate for the deficiency in the valves. It was also believed to be probable that it was the excessive action of the heart that gave rise to the sense of discomfort in the left side of the body. But, in order to improve that condition of the heart, it was not thought necessary to give medicine, but it was deemed necessary to be guarded with reference to food and drink. All wines and spirits and tobacco were forbidden, and it was believed that such total abstinence would be followed by good results. There was no reason why he should not eat three fair meals each day, but they should be simply plain and nutritious. Meat, not much fat, bread, vegetables, and fruits were recommended; but milk, eggs, tea, and coffee were excluded.

It was thought that by such regulation of the man's diet he might enjoy pretty good health for a year or more; but if he should conclude to go on two or three sprees, or walk a great deal, he would soon be in the hospital, and in an œdematous condition.

THE MEDICAL SIDE OF HEMORRHOIDS—PATHOLOGY—TREATMENT—GYMNASTICS AND MEDICINES—IRRITABILITY OF THE MUCOUS MEMBRANE OF THE BLADDER—DANGER OF ENLARGED PROSTATE—SPECIAL CATHARTICS—WARNING AGAINST THE USE OF SULPHUR, HYDRAGOGUES, AND RESINOUS CATHARTICS—WARNING AGAINST THE IMPROPER USE OF MINERAL WATERS OR SALINES.

It was maintained that hemorrhoids are caused, *simply and solely*, by a slow return of circulation from the abdominal viscera through the liver. Surgical means, therefore, in the treatment of this disease, were regarded as always merely palliative, because they did not deal with the true course of the affection.

The treatment, of course, has special reference to increasing the activity of the portal circulation.

In the first place, such exercise must be insisted upon as will strengthen the abdominal muscles. To that end there is a gymnastic movement which is specially adapted to bringing about such a result, and at the same time assists the action of certain remedies. It consists simply in trying to touch the toes with the fingers without bending the knees. This movement, although difficult at first, soon becomes easy, and develops not only the muscles of the abdomen, but also of the legs and thighs. As soon as possible, it should be repeated at least a hundred times every morning.

Next, stimulate the circulation through the abdominal viscera by cutaneous irritants. Sponge the abdomen with salt water and pepper—for example, a dram of red pepper, one ounce of salt, and one quart of water, and used cold.

Douching the spine in the morning is also very serviceable.

All these applications are especially adapted to the treatment of piles, prolapsus of the rectum, and constipation.

If, however, the piles are inflamed and bleeding, recourse should not be had to the gymnastic exercise until the acute attack has subsided, because the straining will be likely to increase the trouble. There is, however, but little danger of increasing the protrusion when inflammation is not present.

The faradic current is another adjuvant in the treatment of sluggish portal circulation, placing one pole over the spine and the other over the liver.

The hemorrhoidal veins, being farthest from the liver, suffer most on account of obstructed portal circulation, and they are acted upon by the abdominal muscles, which assist in emptying them.

When piles are severe, they are quite commonly attended by irritability of the bladder as well; and such irritability, manifesting itself by a burning sensation, which may continue for some time after micturition, is evidence of congestion of the mucous membrane, and also the plexus of veins about the prostate. It was believed that if such congestion was permitted to continue for a year, there was a fair chance that the patient would have permanent enlargement of the prostate gland; and also that those means which were best adapted to restoration of the proper activity of the portal circulation would give the greatest amount of relief to patients afflicted with such enlargement.

Now for the

MEDICINAL MEANS

by which the torpor of the portal circulation is to be removed.

The first and foremost of these is a cathartic; but it was maintained that there was *only one kind* which could be successfully used for that purpose.

The ordinary mild cathartics, such as castor oil, rhubarb, sulphur, etc., were objected to. Special warning was given against the use of sulphur, notwithstanding its popularity in the treatment of piles, because of the debility which follows its use, and the irritation of the piles which it produces. The hydragogues and the resinous cathartics, it was believed, were contraindicated, because anything which produces prolonged catharsis is injurious, for the reason it gives rise to congestion, perhaps inflammation of the mucous membrane of the lower part of the bowel. Fortunately, any large excess of the natural salts of the blood is gotten rid of almost entirely by the mucous membrane of the alimentary canal, and it can be removed through that channel without debilitating the patient to any considerable degree. There is less debility, it was said, following a diarrhœa caused by these salts than by any other cause. It is much less than the debility which follows diaphoresis or diuresis. The almost exact proportion of salts normally present in the serum of the blood is found in some of the mineral waters; hence their special adaptability as agents for producing catharsis without causing debility or disturbance of digestion.

In the treatment of piles, therefore, it was recommended that the patient should drink one or two pints of Congress or Geyser water every morning, so as to insure one free, watery evacuation from the bowels after breakfast.

Such means was regarded as the most efficient at our command for unloading the portal circulation. Continue such a course for six or eight weeks. At the end of that time the patient may have a severe attack of piles. If so, it is a very good sign, as probably it will be the last attack he will have. The salines can be stopped for a few days, and the piles will not only get well of the inflammation, but will shrink up and disappear. The visiting physician remarked that he had succeeded so often in curing chronic cases of bleeding, internal, and external piles by this plan of treatment, he had no hesitation in recommending it as the most available means at our command for giving permanent relief in this affection. Accompanying these remarks regarding the use of mineral waters,

THE WARNING WAS GIVEN

that salines should never be prescribed for any one whose weight had been diminished by reason of any morbid condition. The very nervous person, also, who usually has but little fat, does not sleep well, urine alkaline or only feebly acid, usually is made worse by a visit to Saratoga, if he drinks much of the water.

The class which is almost always benefited, and benefited when other means have failed, are those who have obstruction of the portal circulation as the seat of their trouble, which manifests itself in the way of constipation, hemorrhoids, perhaps prolapsus of the rectum, with a tendency to cystitis, and perhaps enlarged prostate. Varicose veins of the legs, and sciatica, are also very common remote effects of the same cause, and can be most readily relieved by measures addressed to its removal.

Mortuary Records.—St. Louis has an ordinance for the proper keeping of mortuary records.

Progress of Medical Science.

Case of Ascites Cured by Copaiba Resin.—On November 11, 1876, a furnace-man, aged 45, was admitted into the Liverpool Royal Infirmary. He gave a history of cirrhosis of the liver; was emaciated and slightly jaundiced. There was extreme ascites, and the urine was greatly diminished in quantity, but contained no albumen. After paracentesis the liver was found to be contracted and nodulated. Between November 11, 1876, and February 24, 1877, the patient was tapped five times. Digitalis, juniper, gin, acetate of potash, and iron were given, but the urine continued scanty, and the fluid continued to reaccumulate in the peritoneal cavity. Finally, 20 grains of the resin of copaiba, with a little rectified spirit and mucilage, were given every four hours. The urine under this treatment rapidly increased in quantity, until, on an average, 150 ounces were passed per diem. The peritoneal cavity was entirely free from fluid on April 16th, when the resin was stopped and tincture of iron ordered. The patient rapidly regained strength.—*The Lancet*, July 14th.

Three Cases of Thoracic Aneurism Treated by Electrolysis.—One of these cases occurred in the service of M. Dujardin-Beaumetz, at the Hôpital Saint-Antoine, in Paris. The aneurism, which had been growing for two years, formed a prominence on the right side of the sternum, extending from the third to the fifth rib. The pulsations were expansive, forcible, and easily perceived by the naked eye. In the operation a battery of Gaiffe, containing 26 elements, was used. Three needles were introduced into the tumor, one in the third and two in the fourth intercostal space, and the current was passed through each of them in succession for ten minutes. The negative electrode was applied to the right side of the thorax. During the passage of the current the patient experienced little pain. Four hours after the operation the pulsations had diminished notably in force, and the patient felt greatly relieved. On the next day the pulsations were scarcely appreciable in the fourth intercostal space, where they had previously been very marked. On July 10th, when the article from which the above is taken was written, the improvement still persisted. It was then the intention of M. Dujardin-Beaumetz to repeat the operation at intervals of about a month, in the hope of obtaining complete coagulation of the tumor. As, however, the patient is affected with hypertrophy and dilatation of the heart and aortic insufficiency, it is not likely that the improvement will be sufficient to enable him to resume his former occupation.

The other two cases are reported by Dr. Henry Simpson, of the Manchester Royal Infirmary. In one of these cases the tumor first appeared in the second left interspace, close to the sternum, where pulsation was evident both to touch and sight. After several months, solidification of the upper portion of the aneurism took place, and it gradually changed its position, sinking lower down behind the sternum, and leaving its former site resonant on percussion. In January, 1876, ten months after the first symptoms of the affection were noticed, there was a prominent, pulsating eminence occupying the lower portion of the chest, from the level of the nipple to the ensiform cartilage, and at one point a distinct sense of fluctuation was felt over a space as large as a shilling. Electro-puncture was used on three occasions, and on

one occasion the current from thirty-five cells was passed through the tumor for three hours, by means of wet sponges. Foveaux's battery was the one employed. In the two first operations of electro-puncture eight cells were used, and in the third thirty-five cells. The tumor felt somewhat firmer after the first operations, but there was no marked change in it. Hemorrhage took place several times from the punctures, and the patient died seven days after the last operation, from syncope after losing a few ounces of blood. At the autopsy the aneurism was found to be altogether within the pericardium.

In the other case the tumor occupied the middle and left side of the neck, extending upwards to the level of the upper border of the thyroid cartilage, while below it was lost behind the sternum and the left clavicle. It measured 4¾ inches vertically, and 6¼ inches transversely. On February 26, 1876, three needles were passed into the tumor, and the current was passed through it for nearly two hours. Foveaux's battery was used. Eight cells were used at first, and the number was gradually increased to twenty. After the operation the tumor diminished rapidly in size; on March 22d it measured only 2½ by 3 inches, and on October 12th, 1¼ by 1⅝ inches. The patient's general health was good, and he felt perfectly comfortable. On October 18th the operation was repeated, Stöhrer's battery, with ten cells, being used. The patient at first did well, but, a fortnight after the operation, inflammation set in and an abscess formed, which was aspirated, and subsequently discharged freely. On December 27th a sudden gush of blood, estimated at two pints, shot from the aneurism, and the patient fell back dead. At the autopsy the aneurism was found to involve the innominate and the transverse arch of the aorta. It was lined anteriorly and above by a dense layer of fibrin an inch in thickness. The true wall of the aneurism was destroyed opposite the first piece of the sternum, and the cavity found at that point contained pus, and communicated with the interior by a tortuous opening. In this case it is fair to conclude that the electrolysis added six or seven months to the patient's life, while it certainly gave him freedom from pain and discomfort.—*Gazette des Hôpitaux*, July 17th, and the *British Medical Journal*, July 14th.

Quinine Exanthem.—Prof. Köbner, of Breslau, reports the case of a large, powerfully built woman, 28 years of age, who was attacked with a syndrome closely resembling that of scarlet fever, whenever she took even a small dose of quinine. The symptoms consisted in a chill, which was sometimes repeated, a feeling of precordial anxiety, nausea, vomiting, intense headache, high fever, and angina. A few hours after the chill an erythematous eruption made its appearance on the face, and spread rapidly over the entire body. It was attended by intense burning and itching, by slight œdema of the face, and injection of the conjunctiva. The color disappeared for a moment on pressure. The eruption on one occasion completely covered the entire body; on another it was confluent on the upper part of the body, but discrete on the legs. On this occasion the eruption on the legs was slightly papular, and the lower border of the confluent part was not sharp, but gradually faded into the healthy skin. After a variable length of time, according to the amount of quinine taken, the symptoms abated and desquamation began. The angina affected only the posterior wall of the pharynx, the soft palate and pillars being normal. Three times in the course of five months the patient was seized with these attacks. The first time, the exanthem broke out after 3½ grs. of quinine had been taken. As a diagnosis of scarlet fever was made, the quinine was continued for eight days, and the eruption persisted for the same length of time. Desquamation then began, and continued for six weeks, and on the soles of the feet, in fact, for nine weeks. The fever was high and persistent, and the prostration was very great.

Three months later the exanthem reappeared, after a dose of 2¼ grs. of quinine. The stage of eruption lasted four days, and the desquamation three weeks. The third time, the exanthem made its appearance after a dose of only 1½ gr. of quinine. The stage of eruption lasted only two and a half days, and the desquamation fourteen days. The affection this time ran a milder and shorter course than on the two previous occasions.

Dr. Von Heusinger, of Marburg, states that he has met with two cases, in which symptoms entirely analogous to those described above, were produced whenever even very small doses of quinine were administered. In these cases, however, the eruption was confined to the face. Both patients were women. One of them was at one time able to take quinine without inconvenience.—*Berliner klinische Wochenschrift*, May 28th and June 18th.

On the Causes of Calcareous Degeneration of the Arteries.—Prof. Gubler states that his attention was drawn to this subject by observing the fact, that calcification of the arteries is very frequent in middle-aged and even young men, belonging to the lower orders in Paris, while in the upper classes the affection, as a rule, does not begin to make its appearance until the age of 60. He does not think that the abuse of alcohol has much to do with this difference, but ascribes it mainly to the different food consumed by the two classes of the population. The rich live principally on animal food, and even their favorite vegetables—asparagus, mushrooms, truffles—contain large proportions of nitrogenized principles. The poor, on the contrary, live principally on potatoes, bread, salads, herbaceous vegetables, and fruits, all of which contain large proportions of mineral principles. The blood consequently contains an excessive quantity of salts, which are chiefly earthy phosphates and carbonates, and there is a constant tendency to deposit them in tissues, which are poor in vessels and are nourished by serum supplied by the vessels of neighboring regions. The cure of abscesses and tubercles by calcification is evidence of this tendency of poorly nourished tissues, to accumulate relatively enormous quantities of salts within their organic framework. The middle coat of the arteries, which is poorly supplied with blood-vessels, possesses but little vital activity, and is nourished by the serum which incessantly filters through the internal coat, is especially predisposed to undergo the atheromatous and calcareous degeneration. As evidence of the correctness of this view, Prof. Gubler states that calcification of the arteries is strikingly common among the peasants of the Department of Orleans, which is a calcareous region. On the other hand, in a part of the country which is entirely wanting in chalk, it has been found that the induration of the arteries is only met with in persons of advanced age. In Puy, which is in a granitic and volcanic region, atheroma of the arteries is a rarity. In a convent of Trappists, a religious order which is prohibited the use of meat, the radials were found markedly indurated in half a score of the younger monks, and particularly in the prior, who was only 32 years old. Prof. Gubler does not claim that

he has definitively settled the question of the causation of arterial atheroma, but simply that the above facts supply a step in the right direction.—*La Tribune Médicale*, July 15th.

Foreign Body in the Middle Ear with Uninjured Membrana Tympani.—Dr. Schalle reports a case, in which a sudden pain in the right ear was complained of, while the nasal douche was being employed. The patient was deaf on the left side, from the detonation of a cannon-shot, but the drum on the right side was normal, except that there was congestion along the handle of the hammer. The douche was administered by means of a two-ounce rubber syringe. In spite of the use of leeches, purgatives, and low diet, and enforced rest in bed, an acute suppurative inflammation of the middle ear on both sides was developed. Paracentesis of the drum was performed on the right side, and a thin purulent fluid was evacuated. Two days later a black object was seen between the lips of the small wound, and after careful and patient manipulation, Dr. Schalle succeeded in seizing it with forceps and drawing it out. The foreign body was brownish-black in color, irregularly cylindrical in shape, and about one-fourth of an inch in length, by one-eighteenth of an inch thick. On examination it was found, as had been suspected, to be a piece of hard rubber. After the removal of the foreign body, the inflammation yielded to treatment. Four weeks later the incision had healed, but the drum had not yet regained its normal appearance. A watch was heard on the right side, at about one-tenth of the normal distance.—*Berliner klin. Wochenschrift*, July 30th.

The Cold-sound (Psychrophor), a New Instrument for Treating Pollutions, Spermatorrhœa, and Chronic Gonorrhœa.—A little over a year ago Dr. Winternitz, of Vienna, designed an instrument, by means of which he secures the advantages of the mechanical irritation of the urethral mucous membrane by the metallic sound, combined with the anæsthetic and tonic influence of cold. It consists of a double current catheter without eyes, the two canals communicating with one another near the point of the instrument. The instrument is introduced into the urethra until its point has passed the pars prostatica, and it is then attached by rubber tubing to a reservoir containing water at the desired temperature. On turning a stop-cock, the water flows into one canal and out through the other, whence it is conducted away by another piece of tubing. In this way the caput gallinaginis and the entire urethral mucous membrane are exposed to the mechanical action of pressure, and to the sedative action of cold. The success obtained by Dr. Winternitz, by the use of this instrument, was so encouraging from the very beginning, that he has employed it constantly for over a year.

He has treated with it twenty two cases of pollution. Of these two did not return after the first application; one was improved at first, but soon became as bad as before, and the treatment was discontinued after the cold-sound had been used sixty-five times; twelve are still under observation, and have been so much improved by the treatment, that the pollutions occur very rarely, and the secondary symptoms, hypochondria, etc., have entirely disappeared. In three cases the improvement was marked, when the patients withdrew from observation; in two others the pollutions became less frequent, but the secondary symptoms remained unchanged. The two remaining cases are described in detail. In one, the patient was a Russian officer, forty-six years of age, and the affection was due to excessive venery. The pollutions occurred regularly in the night after coitus, and recurred two or three times a week, when the patient was continent. The cold-sound was used daily for ten minutes with water at 59° F.; during its employment the patient experienced a sensation of pleasant coolness, and the relaxed scrotum contracted energetically. Some difficulty was experienced in removing the instrument. During the four weeks that the treatment was continued, there was only one pollution. The erections became more complete. In the second case the pollutions were frequent, and there were symptoms of excessive spinal irritation. The first introduction of the instrument caused great pain, and brought on an hysterical fit, but these symptoms disappeared after the water (59° F.) had flowed through the sound for five minutes. The treatment was continued daily for three weeks, when the patient was discharged cured. He had not had a single pollution from the time the treatment was begun.

Dr. Winternitz has had sounds made corresponding in size to Nos. 18, 20, 22, and 24. At the first sitting he sometimes uses water at a temperature of 64° or even 66° F., and at a later period sometimes goes as low as 54½° F. Besides the above, he has treated nine cases of spermatorrhœa with the cold-sound. In four of these cases he obtained very favorable results; two cases wese very markedly improved, while in the other three the treatment was without special results. In the cases of spermatorrhœa as well as in those of pollution, in which the treatment proved successful, general relaxation of the genitals, and loss of muscular tone in the scrotum were marked symptoms. The cold-sound was also used in five cases of too rapid ejaculation during coitus, and in two cases of obstinate chronic gonorrhœa. In the former its use was followed by at least temporary improvement, and both of the latter, one of which had lasted three years and the other six months, were cured.—*Berliner klinische Wochenschrift*, July 9th.

Treatment of Ranula.—Dr. Panas has frequently succeeded in curing ranula by the injection into the tumor of from four to ten drops of a concentrated solution of chloride of zinc. Among others he cites one obstinate case in which excision, seton, and drainage had successively failed; the contents of the cyst were always reproduced, and finally operative interference was abandoned, except when attacks of suffocation rendered palliative puncture necessary. Ten drops of a solution of chloride of zinc, of the strength of one to ten, were injected without previous evacuation of the cyst, and shortly afterwards the injection was repeated with a 20% solution. In less than five weeks from the time this treatment was begun, a complete cure had been produced. This treatment is applicable to all varieties of mucous and serous cysts. It has succeeded in a case of subhyoid cyst, which had resisted cauterization and the injection of tincture of iodine; it yielded to a single injection of chloride of zinc.—*Le Bordeaux Médical*, July 31st.

Numeration of the White Blood-Corpuscles in Diphtheria.—MM. Bouchut and Dubrisay have examined the blood of twenty-four children suffering from diphtheria, of whom eleven cases are classed as diphtheritie pharyngitis, and thirteen as croup. Hayem's numerator was employed, and in all ninety-three examinations were made. These examinations demonstrate the occurence of an increase in the number of white globules, and of a diminution in the number of red globules, in diphtheria. The average number of

white globules was 26,660; in forty-two of the examinations the number was greater than this, and in one it even reached 105,000. The number of globules was only eleven times within the normal limits, viz.: 5,000 to 10,000. The average number of red globules was 4,461,543. The augmentation in the number of white globules was greater in proportion to the severity of the diphtheria. In one case which may be considered as typical, the number varied between 28,237 and 65,887 during the course of the disease; it had reduced to 15,687 on the eve of the patient's discharge, and on the next day fell to 4,706.—*Gazette Médicale de Paris*, July 28th.

An Epidemic of Lead-Poisoning.—A very large number of cases of lead-poisoning have recently occurred in the 8th and 17th wards of Paris. Dr. Ducamp has had sixty-five of these cases under observation, and he made them the subject of a paper read before the *Société de Médecine Publique*, on July 25th. The patients belonged to all classes of the population; in some families all the members, both old and young, were affected. After careful investigation, Dr. Ducamp found that all his patients were served from the same bakery, and as he could positively exclude all other methods by which the poison could be introduced into the system, he came to the conclusion that the bread was the agens morbi. Chemical examination showed that it contained lead; it was evident, however, from the character of the baker, and from the fact that he and all his family were among the most severely affected victims, that the lead was not placed in the bread with criminal motives, while on the other hand, the fact that the water and flour used were the same as were used by the neighboring bakers, whose bread was not poisoned, showed that these substances were not toxic. Dr. Ducamp finally ascertained that the baker had been making use of old wood taken from demolished buildings, to heat his ovens, and here he struck the root of the trouble. This wood had been repeatedly painted with white lead, and when it was consumed by the fire, an oxide of lead was formed, which was deposited in a pulverized form on the floor of the oven. When the embers were withdrawn and the bread put into the oven, the oxide of lead probably adhered to the bottom of the latter, and was removed with it. The correctness of this theory was confirmed by two striking facts: the persons whose duty it was to brush the bread, and who must have detached a portion of the lead and inhaled it in the form of dust, were the first to be affected, and had the most severe attacks. Again, in one family, there were two women, of whom one ate only the soft part of the bread, while the other ate the crusts. The former escaped entirely, but the latter was attacked so severely, that her life was in danger.—*La Tribune Médicale*, August 5th.

Extraordinary Hypertrophy of the Mammæ in a Young Girl.—MM. Benoit and Monteils report a curious case of hypertrophy of the mammæ. The patient, Rosine M., aged 16½ years, was brought before the *Académie de Montpellier* in 1861. When seated, the two breasts were supported on the thighs; when standing erect, the left breast reached five inches and the right breast three inches below the umbilicus. The left breast measured 41½ inches, and the right, 38¼ inches in circumference; the pedicle of the former was 27¼ inches, and that of the latter 26½ inches in circumference. The nipples were rudimentary and situated laterally. The hypertrophy had commenced only eighteen months before; all the elements of the glands took part in the enlargement. Subsequently to 1861, the condition of the breasts remained stationary for many years. In 1862 the patient began to menstruate, but her courses came on irregularly. In 1869 she was married, notwithstanding her deformity, and shortly afterwards her breasts began to diminish in size. Since then she has had three children, and is at the present time far advanced in her fourth pregnancy. One of the children died, but the other two are strong and healthy. Rosine was unable to nurse any of her children, her breasts remaining unproductive, although they became turgescent during her pregnancies. At the present time she no longer presents the deformed appearance, that was formerly so marked. When dressed, she has only the appearance of a woman with voluptuously developed breasts. The left breast now measures 13 inches in circumference; the right, 10½ inches; the left pedicle, 13½ inches, and the right, 12½ inches. This case proves the correctness of the views held by Astley Cooper and Velpeau, who believed celibacy to be a cause of hypertrophy of the mammæ, and advised marriage in its treatment.—*Le Mouvement Médical*, August 11th.

Very Rare Form of Monstrosity of the Female Genito-urinary Organs.—In the wards of M. Tillaux, at the Hôpital Lariboisière, there is at present a small, deformed woman, 26 years of age, who presents an exstrophy of the bladder, with complete absence of the vagina. The external organs of generation are represented only by the orifice of the uterus, which is situated in the median line almost on a level with the skin, and by rudimentary labia minora and majora, which are not united in front. The clitoris, urethra, and anterior wall of the bladder, are absent. The ureters open into the rudimentary bladder near the median line. Palpation shows that the pubic bones are separated in front, by a space that is about as wide as five fingers, and the pelvis seems to be enlarged to that extent. The umbilical cicatrix is located at the middle of the superior border of the exstrophic bladder. The cervix uteri forms a slight prominence, into which the skin is attached. It is conical in form. The cavity of the uterus is of nearly the normal depth, but rectal examination shows that i shape, the organ retains the peculiarities of childhood. The patient began to menstruate at the age of 15 years, and since then has been perfectly regular.—*Gazette des Hôpitaux*, July 21st.

Hydrastis Canadensis in Uterine Hemorrhage, etc.—Dr. Gordon, of Hannibal, Mo., states that he has, for the last ten years, made extensive use of the tincture of hydrastis in cases of uterine hemorrhage, with such satisfactory results, that he now seldom resorts to any other remedy. When the hemorrhage is severe, he gives twenty to thirty drops of the tincture at short intervals, until the active bleeding is controlled. The remedy is then continued in doses of from two to five drops at longer intervals. When there is much prostration from loss of blood, he combines the tincture of cinchona flava with the hydrastis.

In menorrhagia, two to five drops of the tincture of hydrastis, every two or three hours or oftener, usually give prompt relief. Larger doses may be used if necessary. After the flow is reduced to its normal quantity, the minimum dose is continued twice a day until the next menstrual period, when, if necessary, the larger doses are resumed. In dysmenorrhœa dependent on chronic endometritis, from seven to ten drops of the tincture, with an equal quantity of a solution of bromine (gtt. i.–Oj.), three times a day, have given very satisfactory results.—*Chic. Med. Jour. and Exam.*, August, 1877.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE PRICE OF REPUTATION.

THE making of a reputation is a speculation in which all engage, but in which few succeed. The latter fact probably explains the perversity of the human disposition to create exceptions to general rules, to make extremes meet, and to accomplish impossibilities. There is a general belief in the eternal fitness of things, which happily reconciles much of our work with failure, and strikes the balance between hope and fruition. It is our duty, nevertheless, to try, if we do not succeed. There is a gratification in the effort, even if our expectations are not reached. The boy who eats merely to get fat has no soul. We have all sorts of maxims to help us up the hill, any one of which are like so many balms in Gilead to heal our wounded hopes. The greatest trouble, however, is not so much in finding workers as in securing those who can appreciate work. The valley of expectancy is strewn with the bones of disappointed geniuses—from the man who thought he earned a crown to the one who died without a hospital appointment. But this is one of the inscrutable rulings of fate, and can no more be explained than the fact that whenever some people sing all the dogs in the neighborhood are sure to howl. If it be agreeable to the dogs, it is far from being so with the singer, unless, perhaps, the latter is willing to believe that his voice has been created merely for the sympathetic responses of his four-footed friends. All we have to say is, that the singer is unfortunate in that association of circumstances which gives him such an audience. This is the best view to take of the matter, and the contemplation of the thought is full of comfort alike to the student who loses the thesis prize, and his preceptor who just misses his election to a permanent membership of the State Society. Hence, we are inclined to pity the communities who might be served more than the individuals who wish to serve them. There is more comfort in such a thought than any one who has never had occasion to apply it would imagine. We have known of very even-tempered gentlemen who have actually smiled when they have missed an election, and have expressed the satisfaction of being martyrs in their own cause. To do this repeatedly and naturally requires special training.

Like most other good races, this one for distinction is not always for the strong. The weak man who may have good sticking qualities may be the winner in the end. If it be possible to imagine such a thing, he may sing down the very dogs. As a case in point, we know of one gentleman the dream of whose life it was to become an author, and who, after being denied opportunities for half a century, finally, in the absence of a quorum in his local Society, became a delegate to the American Medical Association, and had his paper finally published in the Transactions of that body. As a fitting comment on the completion of his life-work, his obituary appeared in the next volume. He evidently died in the full conviction that it was no easy matter to appear in such a large book, and was doubtless happy and contented. This only proves, among other things, that every one is not appreciated in his own town. For such individuals the people have telescopic eyes and telephonic ears. The farther they are off the better apparently for themselves. Hence, a chance for reputation sometimes centres on a delegateship to some State Society. We have known of instances in which gentlemen who were constipated with modesty at home had a diarrhœa of assurance when away—so much so, that they were making motions at every sitting, and causing their presence to be felt on every occasion. It was considered to be a touch of irony to suggest that a gentleman who became eloquent upon a Chinese emmenagogue be sent to China to further investigate the remarkable properties of the drug; but, after all, it was giving him the extra advantage and charm of distance. This may help to explain why men go from home to be heard.

Then again, if, by hook or crook, a medical man gets a reputation, how many there are who stand ready to criticise his endeavor to advance one science. If a new instrument is invented by Dr. A., Dr. B. is never satisfied until he either puts in a claim of priority for himself or for some antediluvian heathen who in his time could not tell a uterus from a kidney, or diagnosticate a case of hay fever from sclerosis of the anterior horns. This is in the highest degree discouraging to inventive geniuses. Fair play for the heathen is hardly an argument in favor of such a course, although it is often urged on all such occasions.

But worse than all is a deliberate attempt to belittle greatness when it is known to exist. If Dr. C. is acknowledged as a leader, his friend Dr. B. thinks he is overrated; that he was made by Dr. D.; that he has no education, has vulgar manners, is untruthful, or, perchance, drinks and smokes. From the individuals

the theories are attacked, and there are those who will not even to this day believe that the prepuce is a spinal centre; that the urethra is a receptacle for gun-barrels; that carbolic spray is death to all venturesome bacteria; that fractures never shorten; that individual humors can be diagnosticated by the character of the sweat; that pessaries are useful; that the uterus should be incised; that hay fever means congestion of the pituitary body; that mineral waters are good; that mercury is a tonic; and that the plaster-Paris jacket "is an era in surgery." In the face of all these facts, we ask our readers if it is not better to be contented in obscurity?

THE VISITING CORPS OF THE HEALTH BOARD.

It will be recollected that some time since the Health Board of this city received an extra appropriation of five thousand dollars for the care of the sick poor. For this purpose forty-seven visiting physicians, at a salary of $100 per month, were appointed for special duty, from July 18 to Aug. 14, inclusive. We are informed by Dr. E. H. Janes, in his official report to the Board, that: "The services of these gentlemen, forty-seven in number, consisted in visiting from house to house the poor of the city, particularly those residing in crowded tenements, with a view to the relief of children suffering from sickness, especially of a diarrhœal character. Each visitor was assigned to a district, which he carefully canvassed, visiting each poor family in succession, imparting in every instance such advice as appeared necessary, distributing small tracts containing in the English and German languages plain directions concerning the cure and prevention of diarrhœal diseases of infancy, and treating such cases of sickness as fell under their observation and were without medical care. In the capacity of sanitary missionaries they visited during the above period, with the aid of five members of the vaccinating corps, 23,566 houses, 131,573 families, treated 4,719 cases of sickness, and distributed 5,128 excursion tickets for the Floating Hospital of St. John's Guild. As these appointments were not all made on the same day, the average number of days occupied in the service was twenty-seven, making an average of about ninety-four visits per day for each visitor."

We are well aware that figures and statistics prove almost anything, but we fail to see the practical utility of any medical visits when ninety-four of them are made in a day. We are glad, however, that these young gentlemen earned, even at that rate, their hundred dollars per month.

MORTALITY AMONG CHILDREN IN BERLIN.—The mortality among infants in Berlin diminished in July as rapidly as it increased in June. During the last week in June, 400 more children died than during the last week of July. The diminished mortality was undoubtedly due largely to the setting in of cooler weather.

Reviews and Notices of Books.

DER EINFLUSS DER BESCHÄFTIGUNG AUF DIE LEBENSDAUER DER MENSCHEN nebst Erörterung der Wesentlichsten Todesursachen. Von DR. A. OLLENDORFF, pract. Arzt in Berlin. Berlin: Norddeutsche Buchdruckerei und Verlagsanstalt. 1877.

This is the title of a work the first portion of which has recently been published in Berlin. It is put forth as a contribution to the study of sanitary science, and will appear in irregular parts or volumes, each of which, however, will constitute a complete work in itself. The author has undertaken the difficult but important task of investigating from a statistical standpoint the influence of different occupations on the health and life of mankind. The first number, which is now before us, constitutes the introduction to the entire work, describes the methods of investigation, and discusses the value of the average age at time of death as a standard of mortality in general, and of the mortality among persons engaged in special avocations in particular. The second number, which will appear in the course of the present year, will deal specially with workers in iron.

Although medical literature at present contains many valuable articles on sanitary subjects, the inherent difficulty of the task has hitherto prevented the production of any comprehensive statistical work. The present work, therefore, is destined to fill an important void, and, if carried on in the spirit in which it has been begun, it will doubtless prove of the greatest value to students of sanitary science.

SOME GENERAL IDEAS CONCERNING MEDICAL REFORM. By DAVID HUNT, M.D. Boston: A. Williams & Co. New York: Wm. Wood & Co. 1877.

This small monograph, which commences with a rapid review of the evolution of medical doctrines in the past, contains some valuable suggestions with regard to the reforms that are necessary in medical education in America. The author claims that an earnest attempt at reform of the methods of teaching, and a thorough adjustment and rearrangement of the subjects taught in our medical schools, would have a far greater influence in improving the character of the graduates than a mere extension of the time of study can have. The result would be less of *éclat*, but more of gain.

Dr. Hunt lays bare with an unsparing hand the faults and shortcomings of medical men as a body in America. He denounces the system of favoritism and cliquism in the schools and medical societies. He is particularly hard on the medical lights of the modern Athens, and his remarks must prove rather disagreeable reading to them. The strictures, however, contain so much gall and wormwood that we are disposed to think the author cherishes some personal resentment against the members of the profession in Boston, which renders him incapable of forming an unbiased judgment.

UNIVERSITY OF BERLIN.—Prof. Helmholtz has been elected to the office of Rector Magnificus in the University of Berlin, for the academic year beginning on October 15th. This election of the celebrated professor of physics to the most honorable position in the University, gives the liveliest satisfaction to all friends of real learning. Prof. du Bois-Reymond has been chosen Dean of the Medical Faculty.

New Instruments.

DESCRIPTION OF A NEW DILATOR.

By J. A. STEURER, M.D.,
OF NEW YORK CITY.

Water, as adapted to the surgery of strictures, urethral and otherwise, has had a very limited use. Although well known to be a power of the most equal, unvarying, and greatest strength, its use in the dilatation of canals has been confined chiefly to the cervix uteri, as used by Barnes and Molesworth in the form of rubber dilators.

Curling, in his work on "Diseases of the Rectum," mentions instruments for dilatation of strictures of the rectum, in which the pressure was obtained by means of water, but does not go into their mode of construction, nor manner of use. Whitehead and Busch have constructed instruments for the same purpose, also using water.

As far as I have been able to learn, there has been absolutely no use of water as a dilating force for strictures of the urethra, and an instrument for this purpose has never been introduced.

I have also departed from the ordinary agent, rubber (to which are attached certain risks, as will be shown below), as a vessel for holding the water, and have substituted therefor an animal membrane, which possesses many advantages.

In introducing this instrument to the profession I hope, besides calling attention to water as a dilating force in strictures of the urethra, to lay before them a plan of treatment which will be safer, more rational, cheaper, shorter in duration, and for the patient much more pleasant than the ordinary modes of treatment now in vogue.

The instrument is composed of a hollow canula *A*, with a bulb at the end *c*; the portion between *b* and *c* is composed of pure copper, which allows you to make any fixed curve, or a spiral spring, which makes it very flexible. Over *b* to *c* is a membranous tube fastened at both ends. The canula is perforated within the membrane to allow free passage of water. *B* is a hard rubber syringe, with a graduated piston, and worked with a rack and pinion, the latter being removable. There is also a rubber band attached to the head of the syringe, and passes through the ring of the piston, so that by its own elasticity it draws the latter down, thus making the instrument work automatically, and in proportion as the strictnre dilates, the membrane becomes distended. D shows the tube distended.

The manner of working the instrument is as follows: the membrane is soaked in carbolized water until it becomes very flexible; all the air is driven out of the tube by compressing the membrane, which is then greased. The syringe being filled with the same water, is screwed on the canula, which is then introduced through the stricture. The water, being forced out of the syringe, gradually distends the membrane, and thereby the stricture.

Although the membrane is very delicate, it is very powerful, owing to the method of its construction, and the instrument may be used for gradual dilatation or divulsion. There are several points to be considered in the use of this instrument: First. A greater degree of dilatation may be secured at one sitting, and with very much less pain, than with an ordinary sound. The pain caused by introduction of solid instruments through strictures is due to two things: first, distention; and secondly, contraction of the muscles around the unyielding instrument. Now by the use of this instrument, the distention being so gradual, the patient is almost unconscious, and if the muscles do contract, they push the water from side to side without diminishing the calibre. Secondly, you can have any degree of dilatation, from No. 13 to any size French, which obviates the necessity of having a great number of sounds. Another great point is, that you can act upon the diseased surface without irritating the whole urethra by unnecessary contact with instruments, and also allowing you to dilate the parts without cutting the meatus urinarius.

Some might object to the instrument because it has an animal membrane, and might carry infection. This is very easily overcome by using the carbolized water freely.

It may also be used in dilating strictures of the rectum, cervix uteri, and, by substituting a flexible tube for the œsophagus. Here let me add that, whilst having great power in hand, it can be easily regulated, and there is no danger of one part suddenly becoming distended, as in the use of rubber instruments, and risking rupture of the parts above.

I have used it with perfect satisfaction in a great number of cases of urethral strictures, and patients who have had sounds passed greatly prefer this method of treatment. The instrument, with extra membranes, is made by G. Tiemann & Co., of this city.

113 West 22d Street.

Correspondence.

PATENT URACHUS WITH CALCULUS.

To the Editor of The Medical Record.

Sir:—Several months ago I was called to see J. H. B., æt. fifty, a mechanic of spare habit and always in good health. He complained of soreness and constant pain at the umbilicus, and on examination I found the natural depression filled up by a rounded tumor, apparently the natural tissues enlarged by swelling. There was also circumscribed hardness of the tissues around the umbilicus. The parts were red and very tender to the touch, having every appearance of an ordinary erysipelas.

At the time of my visit he told me that a score or more of years before, after a similar experience, his attending physician at that time removed a "stone" from the umbilicus. I applied a poultice and awaited developments. The above condition continued from day to day, with the exception that the tumor projected more and more from the umbilicus, and the circumscribed hardness decreased. Any movement of the body or handling of the tumor produced severe cutting pain in the part. The tumor was exquisitely tender. No constitutional symptoms accompanied the trouble.

On the tenth day from my first visit I made an incision into the tumor, for the purpose of exploration, about half an inch in depth, when I came upon a hard substance, which, after considerable difficulty, I removed and found to be a concretion, smooth and ovoid in shape, about the size of a medium hickory-nut, and of the color and appearance of a phosphatic calculus,

with a strong, urinous smell. After the removal the wound readily healed. The ordinary retraction of the tissues within the navel fossa took place, and the man has suffered no inconvenience since.

What was the concretion? In the MEDICAL RECORD, No. 354, Dr. Rose's article describing a patent urachus called this case to mind, and I have transcribed the above from my notes of the time.

I cannot conceive this concretion to have been anything else than a calculus, formed from urinary deposit in a patent urachus.

No treatise within my reach mentions anything of the kind, and the novelty of the case is my reason for reporting it.

In this man there was doubtless a similar calculous formation something more than twenty years before.

H. D. VOSBURGH, M.D.

LYONS, N. Y., August 29, 1877.

BACTERIA IN URINE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The RECORD for the 25th inst. contains an article "On the Generation of Bacteria in Urine," by Francis Gerry Fairfield, in which he is represented as saying that the fungous development from dead bacteria is "evidence that some of these low forms of life are animal only in their *earlier* stages." And further on in the article, after giving the results of his examination of a specimen of urine and potassa which had been standing for some time, he says that "it suggests that monads and bacteria are but stages in a development of life that passes from them into a vegetable form, and finally terminates in the amœba and the higher animalcules."

Now, a change from the vegetable to the animal kingdom *would* be evolution extraordinary! and a difficult doctrine to prove. Fungi spring alike from animal and vegetable bodies, and infusions and bacteria, which for a long time have been classed in the vegetable kingdom, are like associated.

The fact also of bacteria being found in the urine six or seven hours after evacuation, as in the case referred to, signifies nothing. Nearly all specimens of urine in warm weather, or almost any infusion of organic matter, will show the same, and often in less time. There are probably few persons who have examined into this question of bacteria but who will quite agree, in the main, with the conclusions of M. du Cazal, as published in France last year and copied in the RECORD for February 10, 1877, as follows:

1. The alkaline transformation of the urine in the bladder may take place when bacteria are not present.

2. Bacteria can live and multiply in urine that continues to have an acid reaction, and which may be even more acid than normal urine.

3. When introduced into a healthy bladder, bacteria are evacuated after a temporary reproduction, without producing any alterations in the urine; on the other hand, when introduced into a bladder that is in a state of chronic suppuration, they become acclimatized and proliferate there almost indefinitely.

4. Finally, they may be present in large numbers in the bladder, and very probably in the kidneys also, for months and perhaps for years, without causing either local or general disturbances.

"It is evident, then, that the very important role which has been attributed to bacteria, in the causation of morbid phenomena of the genito-urinary system, does not properly belong to them. The day will probably come when it will be admitted that these elements play but a purely epiphenomenal and absolutely secondary role, at least in the domain of pathology."

There may be, and probably is, some exceptions to this, perhaps to be found in the *Pathogenous sphærobacteria* of Cohn, exemplified by the *Micrococcus vaccinia, M. diphthericus*, etc.

Again, the experiments with urine and potassa put into bottles taken from water showing 241° F. heat, cannot be taken as conclusive, since Messrs. Dallinger and Drysdale subjected sporules of flagellate infusoria to a temperature of 300° F. without destroying their vitality.

These gentlemen observed the complete cycle of the *flagella*—from *cercomonads* to the amœboid condition, their coalition and the formation of a cyst which gave exit to a multitude of granules (sporules) of such extreme minuteness, that, even under a magnifying power of 2,500 diameters, they had not any appreciable dimension. And while examining fluids with a $\frac{1}{50}$ inch, objective gelatinous points were seen to form where, at first, no sporules could be identified, and their evolution traced until they reach the full monad stage.

What is true of the beginning of the lowest forms of animal life is also true of the vegetable, so far as has been determined, the germs being often so minute that they escaped identification and appreciation. Hence, much of past experimentation is valueless so far as definite results are concerned.

CHAS. E. SLOCUM, M.D.

SHELBYVILLE, Ind., August 30, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 9 to September 15, 1877.

MURRAY, R., Colonel and Surgeon. To be regarded as temporarily awaiting orders to date from his being relieved from charge of the Medical Purveying Dept. at San Francisco. S. O. 192, A. G. O., Sept. 10, 1877.

MCPARLIN, THOS. A., Major and Surgeon. Relieved from duty in Dept. of the Missouri, and to report in person to the Surgeon-General. S. O. 193, A. G. O., Sept. 12, 1877.

ALLEN, C. H., Major and Surgeon. Relieved from duty in the Dept. of the Columbia, to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 193, C. S., A. G. O.

WATERS, W. E., Capt. and Assistant Surgeon. Relieved from duty at Mauch Chunk, Pa., and to return to his proper station, Fort Columbus, N. Y. H. S. O. 212, Div. of the Atlantic, Sept. 13, 1877.

BENTLEY, E., Capt. and Assistant Surgeon. Relieved from duty at Scranton, Pa., and to return to his station, Little Rock B'ks, Ark. S. O. 209, Div. of the Atlantic, Sept. 11, 1877.

COWDREY, S. G., Capt. and Assistant Surgeon. Relieved from duty at Wilkesbarre, Pa., and to report by letter to Comd'g General Dept. of the Gulf, for orders. S. O. 211, C. S., Div. Atlantic.

MOSELEY, E. B., 1st Lieut. and Ass't Surgeon. Relieved from duty at Scranton, Pa., and to report by letter to Comd'g General Dept. of the Gulf, for orders. S. O. 211, C. S., Div. Atlantic.

CRAMPTON, L. W., 1st Lieut. and Ass't Surgeon. Relieved from duty at Mauch Chunk, Pa., and to report by letter to Comd'g General Dept. of the Gulf, for orders. S. O. 211, C. S., Div. Atlantic.

TAYLOR, M. E., 1st Lieut. and Surgeon. Relieved from duty at Wilkesbarre, Pa., and to report by letter to Comd'g General Dept. of the Gulf, for orders. S. O. 211, C. S., Div. Atlantic.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending September 15, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Sept. 8	1	24	30	3	4	35	0
Sept. 15.....	0	31	29	0	7	04	0

Lead in "American Leather-Cloth."—For some time past a suspicion has been current in Germany, that the so-called "American leather-cloth," which is used as a covering for children's wagons, is injurious in consequence of its containing lead. This suspicion has been confirmed by the occurrence of numerous cases of sickness among children, the symptoms being those of lead-poisoning. An investigation was recently undertaken at the instance of the Imperial Health Office, and in different specimens of the cloth, both of German and foreign make, the enormous quantity of 45.7 per cent. of metallic lead was found; from a piece of the cloth weighing 10 grammes, a mass of lead weighing 4.25 grammes could be obtained. The cloth burned readily, and drops of lead reduced to the metallic form could be seen running off, even when only a small piece of it was ignited. When exposed to direct sunlight, the varnish cracked and began to peel off. The Board of Health, consequently, earnestly warns the public to beware of this wagon-covering, "in the sanatory interest of the children."

Adulterated Cinnamon.—Three of the most extensive dealers in spices in Mayence, Germany, were recently indicted on the charge of selling adulterated cinnamon. A chemical investigation revealed a not inconsiderable admixture of oxide of iron and crude siderite reduced to a powder. The three dealers were fined 33 marks each, with costs.

Ulster Co. (N. Y.) Med. Society.—Dr. James R. Leaming, of this city, read by invitation before the Ulster Co. Medical Society a paper on Plastic Exudation.

Professional Hygiene.—The German Government has sent one of the professors of the University of Breslau to England, to study the arrangements made to preserve the health of persons engaged in certain trades and manufactories. The profes or has already visited most of the manufacturing towns in England. The diseases studied specially are the necrosis of phosphorus-workers, the cancer of chimney-sweepers, the disease of the bones which affects workers in mother-of-pearl, and the daltonism of railroad employees. The results of these studies will be published, along with an account of the laws at present in force in England, with regard to the hygiene of workshops and manufactories.

Punishment of a Midwife in Germany.—A midwife in Breslau, who had previously been fined for insulting a witness and for participation in a theft, was recently condemned to four months' imprisonment for assault and battery. On the ground that her conduct showed a great want of sense of duty and moral control, the Prussian Minister of Public Instruction has revoked her permission to practise. An unblemished character is considered an essential requisite both for admission as a pupil to the school of midwives and for the obtainment of a permit to practise, and the Minister held that a proper regard for the protection of the people demands that no unworthy person should be allowed to exercise the important functions of a midwife.

The American Dermatological Association held its first annual meeting, at the Cataract House, Niagara Falls, N. Y., September 4, 5, and 6, 1877. The following officers for 1878 were elected: President, James C. White, of Boston, Vice-Presidents, C. Heitzmann, L. Duncan Bulkley, of New York; Secretary, R. W. Taylor, of New York; Treasurer, I. E. Atkinson, of Baltimore. The next place of meeting will be Saratoga Springs, on the last Tuesday in August, for three days. After the annual address, by the President, Dr. James C. White, of Boston, the following papers were read: On Molluscum Contagiosum, by Dr. George Henry Fox, of New York; The Etiology of Cutaneous Diseases, by Dr. Lunsford P. Yandell, Jr., of Louisville; On the Eczema Marginatum of Hebra (Tinea trychophytina cruris) as observed in America, by Dr. L. Duncan Bulkley, of New York; The Pathology of Seborrhœa, by Dr. Arthur Van Harlingen, of Philadelphia; A Case of True Prurigo (of Hebra), by Dr. Robert Campbell, of New York; On the Immunity of Certain Mothers of Children affected with Hereditary Syphilis, by Dr. James Nevins Hyde, of Chicago; The Lymphatic Theory of Syphilitic Infection, with a New View of the Relation between the Chancre and Chancroid, and Suggestions for the Radical Cure of Syphilis, by Dr. William A. Hardaway, of St. Louis; On the Relation of Impetigo Herpetiformis to Pemphigus, by Dr. C. Heitzmann, of New York; On the Xeroderma of Hebra, by Dr. R. W. Taylor, of New York; On the Treatment of Severe Bed-Sores, by Dyce Duckworth, M.D., Edinb., of London; Case of an Undescribed Form of Fragilitas Crinium, by Dr. Louis A. Duhring, Philadelphia; Two Cases of Very Late Hereditary Syphilis, by Dr. L. Duncan Bulkley, of New York; Acute Conditions of Disease excited by Iodide of Potassium, by Dr. Almon Brooks, of Chicago.

A Doubtful Case of Infanticide.—A Dr. de Royer was recently called on in France to examine a woman who was accused of having been secretly confined, and of having subsequently destroyed her infant. From the marks on the abdomen and a laceration of the vagina that he discovered, he felt himself justified in concluding that the woman had been delivered of a child of six or seven months. Eight days later a second expert found the same signs, but thought that they might be due to the expulsion of a mole or a fibrous tumor. The case was then referred to M. Polaillon, who agreed with Dr. de Royer, on the ground that a fibrous tumor large enough to produce, during its expulsion, a laceration of the vagina, would certainly have given rise to hemorrhages and have impaired the general health of the woman, while, on the other hand, a mole cannot cause a laceration of the vagina.

Mount Sinai Hospital.—The place of Admitting Physician to the Mount Sinai Hospital is vacant since Dr. Rudish has resigned. Concerning the position, salary, and other particulars, the latter gentleman (100 E. 58th) may be applied to for information. Application ought to be made to Dr. Jacobi, Secretary pro tem. Med. Staff (still absent from the city).

Original Lectures.

LECTURES ON DISEASES OF THE HEART.

By AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Reported for THE MEDICAL RECORD.]

LECTURE IV.

ANGINA PECTORIS—LESIONS OF THE RIGHT SIDE OF THE HEART—INORGANIC MURMURS.

GENTLEMEN:—I will next direct your attention to a neuralgic affection which occurs especially in connection with lesions at the aortic orifice—namely, angina pectoris.

This affection rarely occurs, with characteristic features, independently of cardiac lesions; but, although commonly referred to the aortic orifice, they are not invariably found in that situation. Angina pectoris is a neuralgic affection, characterized in a typical case by extreme pain, which the patient refers to the precordia as the point of departure, and from that point extending to the left shoulder more frequently, often extending down the left arm, sometimes no farther than the elbow, at other times to the forearm and fingers; in occasional cases extending to the right shoulder and extremity, and in rare cases extending to all the extremities, accompanied with great disturbance of the heart's action in the way of increased frequency and irregularity, and a feeling which is experienced in an intense degree of impending death. These are the features which distinguish a well-marked case of angina pectoris.

It is an important affection, for, when associated with certain lesions, it always involves more or less danger of sudden death; and yet, patients may suffer from this affection for months and years without the occurrence of such a result. I will first say a few words as to the diagnosis of this affection. There is liability to error in this regard, as it is not uncommon for patients of both sexes—more especially, however, the female sex, to experience more or less pain referable to the precordia. These pains generally depend upon intercostal neuralgia, and, to determine that it is not the pain of angina pectoris, but that of intercostal neuralgia, it is only necessary to direct attention to the diagnostic criteria of the latter affection. In the intercostal neuralgia we find the three points of tenderness, or at least two out of the three: we find usually that these patients are anæmic; frequently it will be found that they have had intermittent fever, or, more often, that they are affected with pneumonic phthisis. Intercostal neuralgia is a quite frequent concomitant of the latter affection. The pain of intercostal neuralgia is not intense, usually, and it is confined to the precordia or its immediate neighborhood; that is, it does not extend to the shoulder or down the arm, and is not accompanied with that feeling of impending dissolution which characterizes angina pectoris. Moreover, it is not uncommon for patients to complain of a certain amount of pain in the shoulder extending down the arm and producing symptoms somewhat like those of angina pectoris, but it is not sufficiently intense, and does not give rise to disturbed action of the heart and a sense of impending death. A physical examination of the heart renders valuable assistance in solving these cases. I refer to this error in diagnosis because I am aware that it has been made, although it would seem to be a simple matter to make the necessary discrimination between the two conditions.

In addition, there are cases in which the features of angina pectoris are more or less marked without any evidence of disease of the heart. If we were to define angina pectoris as a neuralgic affection associated with disease of the heart, these cases would not belong in the category. Formerly, I regarded this class of cases, those in which the symptoms resembled those of angina pectoris, and yet were not attended by any evidence, either by physical signs or symptomatic phenomena of disease of the heart, as cases of pseudo-angina pectoris. If we do not accept the view that angina pectoris is always associated with cardiac lesion, we must assume that in a great majority of cases disease of the heart, especially aortic lesion, is present. But in a certain number of cases well-marked symptoms of angina are present independently of any recognizable cardiac lesion. This is an important consideration in connection with the question of prognosis. If there be coexistent disease of the heart the prognosis differs from that to be given when the angina is not associated with cardiac disease; it is less favorable. I have spoken with regard to the occurrence of sudden death in cases of angina pectoris. What are the circumstances which render this danger greater or less? How are we to appreciate the amount of liability to sudden death? There is no absolute freedom from danger, although we have evidence that the disease of the heart is not in itself at all serious. With regard to that point I have had occasion to somewhat modify the views I formerly entertained. Formerly, when I saw a patient suffering from symptoms of angina pectoris, and these symptoms were associated with physical signs of slight valvular lesion of the heart, I gave the opinion that there was no danger of sudden death. I have, however, been led to modify that opinion somewhat; still, the danger of sudden death, under these circumstances, is comparatively small.

On the other hand, the danger of sudden death in angina pectoris is great in proportion as there is advanced disease of the heart; free aortic regurgitation and dilatation of the heart, with fatty degeneration. Has the patient, then, organic disease of the heart? If so, what, and how important is such organic disease? Has he free regurgitation at the aortic orifice; is there much enlargement with dilatation, and are there any evidences of fatty degeneration? When we are obliged to answer these questions in the affirmative, there is great danger of sudden death in connection with angina pectoris. A patient may, however, pass safely through many paroxysms under these circumstances, before the fatal one is reached. It is not the neuralgic affection itself which destroys life, but it is the associated disturbance of the heart's action that is the important cause of death. I might, in answer to the question—How are we to appreciate the amount of danger?—say that it is in proportion as the heart is disturbed in its action during the paroxysm. If the heart beats regularly, the patient is probably, for the time being, safe. The danger, then, of sudden death in connection with angina pectoris is in proportion as there is feebleness and irregularity in the action of the heart. I suppose the cause of death to be weakening of the heart's action so that the left ventricle becomes overfilled, which of course is most likely to occur with free aortic regurgitation, and the heart is unable to relieve itself by the contraction of the ventricular wall.

If you ask why this neuralgic affection is associated with disturbed action of the heart, which lasts only while the paroxysm lasts, I can only say that proba-

bly in connection with the neuralgic pain there is an influence exerted upon the heart through the *par vagum*, such as prevents the proper regulation of the heart.

We may explain, perhaps, the sudden death which occurs in cases of angina in which there is no disease of the heart present, or in which the disease of the heart itself is not sufficient to explain the death, by supposing that in connection with this neuralgic affection there is an influence transmitted to the organ, similar to the galvanic current, through the *par vagum*, which has the power to arrest its action.

I cannot close the subject without saying that persons may present well-marked symptoms of angina pectoris, without evidence of disease of the heart, and may also recover from the liability to it.

I have met with a few instances of this character.

One case of this kind which I now recall occurred in the person of a physician. He had well-marked paroxysms of angina pectoris, and supposed himself to be in continued danger of sudden death. On examination of his heart I was able to assure him that there was no disease present, and that he was not in the danger he had supposed himself to be.

He resumed his practice gradually, within a short time was pursuing his regular vocation, the paroxysms disappeared, and ten years afterwards was in perfect health, having never suffered from any return of the symptoms. As regards treatment, it resolves itself into measures which may be employed for the immediate arrest of the paroxysm, and those which are indicated by the coexistent disease of the heart; the object being to place the general system in the most favorable condition, so that the paroxysms will be likely to be recovered from, and not prove fatal.

With regard to the paroxysm, the indication is to give more or less freely of stimulants, either alcoholic or etherial. Of the etherial preparations, Hoffman's anodyne may be given freely. Alcohol may be administered in the form of spirit and not much diluted, the object being to produce a prompt and distinct impression. In this manner the patient is carried over the paroxysm. A few drops of laudanum, or of the paregoric elixir may perhaps be added to the stimulant with advantage.

We have a remedy which is certainly of great value as possessing the power to arrest the paroxysm very promptly, and that is the nitrite of amyl by inhalation. I have in repeated instances prescribed this remedy, and I know of one patient who had suffered severely from attacks of angina, not passing a day without one and sometimes several, paroxysms, who was able to arrest them so promptly by the inhalation of a few drops of the nitrite of amyl that the affection became quite tolerable.

As regards the second indication, it is essentially that which belongs to the treatment of valvular lesions and enlargement of the heart, and need not be again considered in detail.

LESIONS AFFECTING THE RIGHT SIDE OF THE HEART.

We pass now to the consideration of lesions affecting the right side of the heart; lesions involving the tricuspid and the pulmonic orifice. These lesions are rare. When we meet with them they are, in general, congenital; hence it is that we find these lesions in children too young to suffer attacks of articular rheumatism. It is true that acute articular rheumatism occurs occasionally in quite young subjects, but such cases are comparatively rare. I will direct your attention, first, to the tricuspid orifice. It seems that this valve in health is not quite sufficient to prevent blood from regurgitating; it is a kind of safety-valve, and this leakage has received the designation "safety-valve function" of the tricuspid valve. The mere fact of insufficiency of this valve, then, does not imply an abnormal condition.

At the pulmonic orifice we have lesions similar to those which are to be found at the aortic orifice, though especially involving obstruction rather than regurgitation.

We have corresponding murmurs to represent these lesions. A tricuspid current, however, does not invariably give rise to an appreciable murmur, whereas the mitral regurgitant current almost invariably produces a murmur. This is not easy to explain, but it is a clinical fact. How do we determine that regurgitation occurs at the tricuspid orifice when no appreciable murmur is present? It is determined by the fact that after death the valve permits free regurgitation, as shown by the water-test.

We may determine the fact during life; for, not very infrequently we get a venous pulse on the right side of the neck which is ventricular in character, synchronous with the construction of the ventricles, and that is conclusive evidence of tricuspid regurgitation, although no murmur is present.

The murmur, when present, of course, occurs with the first sound, like the mitral regurgitant. Indeed, the mitral regurgitant usually coexists with the tricuspid regurgitant murmur. The tricuspid regurgitant is distinguished from the mitral regurgitant by its localization at the right inferior margin of the heart, and its transmission to the right rather than to the left. The coexistence of these two murmurs is determined by the differences in pitch and quality between a systolic murmur at the apex and at the right margin of the heart.

Lesions at the tricuspid orifice lead to dilatation of the right auricle, and, as remote results, to dropsy and cyanosis; the same conditions pertaining as in connection with dilatation of the left side of the heart in consequence of mitral regurgitation.

If there is insufficiency of the sigmoid valves at the pulmonic orifice, we should expect to get a pulmonic regurgitant murmur; and I suppose such a murmur is produced, but it has not been my fortune to meet with an instance in which I was able to recognize it. I imagine that it would be very difficult to separate such a murmur from that accompanying an aortic lesion. If, however, we should find a murmur and could be certain that it represented contraction at the pulmonic orifice, and there was no lesion at the aortic orifice, we might infer that the murmur indicated pulmonic, and not aortic regurgitation.

The pulmonic direct murmur, undoubtedly, exists, and we may determine its presence, and thus localize the lesion without much difficulty. If you place your stethoscope over the second intercostal space, just at the left border of the sternum, the murmur, if present, can be heard. With pulmonic obstructive lesion we have a murmur with the first sound of the heart and having its maximum of intensity at this point, and not upon the right side, as is the rule with the aortic lesion.

But you must not take the maximum point of intensity as the only evidence of a pulmonic direct murmur. It must be associated with the fact that the pulmonic direct murmur is not propagated into the carotid. The aortic direct murmur is almost invariably propagated into the artery.

If, therefore, we find a murmur having its maximum of intensity in the second intercostal space on the left side of the sternum and it is not transmitted into

the carotid artery, the diagnosis of pulmonic direct murmur is made.

There is probably such a murmur as the tricuspid direct, and it is determined by a presystolic murmur and heard upon the right side of the sternum, instead of within a certain space about the apex. Such a murmur probably exists, but I regard it as exceedingly rare.

I do not dwell at much length, as you observe, upon lesions affecting the right side of the heart, and simply for the reason that they are comparatively of rare occurrence and unimportant.

INORGANIC MURMURS.

I next propose to ask your attention to inorganic murmurs of the heart—that is, murmurs which are produced without the lesions, which are generally represented by cardiac murmurs. These murmurs, as a general statement, depend upon an abnormal condition of the blood—hence, are known as hæmic murmurs, or, more frequently, as anæmic murmurs, because the condition of the blood which is generally represented by these murmurs is incident to anæmia. Either the anæmic condition itself, the paucity of red corpuscles, disposes the blood to vibration, or some other condition associated with the anæmic state is the cause of the murmur.

At first, perhaps, to those who have not given much attention to this subject, the inquiry arises, if we have an inorganic murmur and are obliged to distinguish between it and an organic murmur, may there not be some doubt in settling the question? This inquiry is natural; but the truth is, we are not usually much embarrassed in determining whether these murmurs are inorganic or whether they are organic.

Let us see, now, of the four important murmurs representing lesions in the left side of the heart, which may be either organic or inorganic. We will begin with the mitral direct murmur, and this leads me to the explanation of a fact which I have not yet mentioned, namely, that we may have a mitral direct murmur without mitral lesion. Perhaps we cannot call this an inorganic murmur, for it is dependent upon lesions, although the lesions are at the aortic orifice and not the mitral. This seems at first hardly probable, but I trust it can be made clear. We may have a loud mitral direct murmur and yet no mitral lesions, and this statement of the fact is based upon physical examination during life, and autopsical examination. I have met with a few cases in which there could be no question with regard to the presence of a mitral direct murmur, and yet, after death no lesion whatever was presented at the mitral orifice. This is the fact, and the question is, how is it to be explained? So far as I am aware, no one has attempted an explanation except myself, and that which I have given is as follows: The murmur occurs in connection with free aortic regurgitation.

What is the condition of the left ventricle as the auricle contracts, when this murmur is present? First in the order of succession of the movements of the different portions of the heart is the contraction of the two auricles. Prior to that, however, the blood is flowing into the ventricular cavity, because of the regurgitation at the aortic orifice; and now, what is the condition of the mitral valve and the left ventricle as the auricle contracts? The ventricle is already partly filled with blood, and the curtains of the valve are floated out so as to come in contact with each other; then comes the auricular contraction and the direct current of blood is forced between those curtains and throws them into vibration, exactly as when the orifice is narrowed, and the murmur is produced.

The murmur, the direct mitral, with free aortic regurgitation, is variable; sometimes it is present, and at other times it is absent, depending upon the variable condition as regards the accumulation of blood in the left ventricle. There is another fact which I have omitted to mention, with reference to the mitral direct murmur when it depends upon lesions at the mitral orifice, and that is, that it may disappear. The disappearance, however, is by no means a good omen. It simply means that the left auricle has become so dilated and the muscular power so diminished that it does not produce a current sufficiently strong, when it contracts, to give rise to a murmur.

I do not think you will find this statement noticed in any work upon diseases of the heart.

In the next place, is it ever questionable whether the mitral regurgitant is an organic or an inorganic murmur? Not exactly; and yet, it is a question whether the murmur indicates important lesion. I suppose that this murmur cannot be called, strictly speaking, an inorganic murmur. We have had occasion to refer to the fact that a murmur at the mitral orifice without regurgitation, is the result of change in the walls of the ventricular cavity, which gives rise to no symptoms and to no danger. It may be produced by a tendinous cord stretching across the cavity, or a roughness of the endocardial membrane. A blowing sound synchronous with ventricular systole, it is said, may be produced by the apex of the heart striking against the little tongue of lung, which is closely adjacent to it, thus pressing the air from the air-vesicles with sufficient force to produce a murmur with inspiration, especially at the end of that act. It is a reasonable suggestion, and will probably account for some instances in which we have mitral systolic murmur without any other evidence of disease of the heart.

Let me caution you about regarding a mitral systolic murmur, when no other evidence of disease of the heart is present, as possessing very great importance. I have a patient under observation who has had a mitral systolic murmur for thirty years, and yet there has never been any trouble connected with the heart.

A mitral systolic murmur is rarely due simply to an abnormal condition of the blood, but an anæmic condition will intensify this murmur the same as it intensifies all the organic murmurs.

Now we come to the aortic orifice, and first with regard to aortic regurgitation, is it ever questionable whether the murmur representing it is organic or inorganic? This question is at once answered in the negative. An aortic regurgitant murmur is always organic; it cannot be produced without insufficiency at the aortic valves.

We have now reached the aortic direct murmur, and it is with reference to this murmur especially that the question will arise as to whether it is an organic or whether it is an inorganic murmur.

When the aortic direct murmur is inorganic, there is often a coexistent murmur at the pulmonic orifice.

What are the circumstances by which we discriminate between an organic and an inorganic aortic direct murmur? We can usually make this discrimination without difficulty, but there are cases in which such discrimination is not easily made. When, however, there is much difficulty in determining the nature of the murmur, it possesses no practical importance.

What are the symptoms which justify the inference that this murmur is inorganic? It may be inferred from other evidences of anæmia, such as pallor of the face and prolabia. Again, we have a physical sign, which is proof positive of an anæmic condition of the patient, and which would lead us to the inference that

the murmur is inorganic, although no other evidence of anæmia was present, namely, the venous hum. This is the most reliable physical sign, when present, of anæmia, that we possess. To determine whether it is present, turn the head of the patient to the left as far as possible, so that you can place the stethoscope in the triangular space behind the sterno-cleido-mastoid muscle, and just above the clavicle. If then you get a humming sound, it is in all probability the venous hum produced by the current of blood passing through the superficial veins. To render it certain, place the finger on the veins above or below, so as to interrupt the current of blood, and now if the continuous murmur ceases instantly, and is reproduced when the pressure by the finger is removed, the question of the presence of the venous hum is settled.

At the same time we frequently get a murmur in the carotid, particularly upon the left side, resembling the sound of a spinning-top. The French have called it the *bruit de diable*.

The coexistence of this venous hum is a valuable point in determining that the murmur which we get at the base of the heart with the first sound is inorganic or hæmic. The other points are these: If it is a purely inorganic murmur we do not get with it an aortic regurgitant murmur. If we find an aortic regurgitant and an aortic direct murmur associated, the presumption is that the direct murmur is organic. We, moreover, get the pulmonic and aortic second sounds in their normal relation to each other when the aortic direct murmur is inorganic. We do not get evidence of enlargement of the heart if the murmur is nothing more than hæmic.

If there be no evidence of organic disease of the heart beyond the murmur, these points will come in to corroborate the conclusion that the murmur is inorganic; or, if it does depend upon lesion at the aortic orifice, that the lesion of itself is unimportant.

The venous hum is an important physical sign, as indicating the existence of anæmia, and important also as indicating to us when the anæmic condition has been removed. It is not uncommon for patients who are suffering from anæmia to improve so much as to consider themselves well, and yet the anæmic venous hum be present. It is fair to conclude, if so, that however much the improvement may be, there is room for further improvement, and that continued treatment will lead to a still better condition.

Original Communications.

CASES OF PERITYPHLITIC ABSCESS, WITH REMARKS.

Case I.—By ALMON CLARKE, M.D.,

SHEBOYGAN, WIS.

On the 17th of July last, I saw with my neighbor, Dr. C. B. Cody, a boy thirteen years old, who, seven days previously, had been attacked with a severe pain in the ileo-cæcal region, accompanied by colicky pains in his bowels and vomiting. The day before he had eaten a large quantity of ripe currants.

Opium had been used in doses sufficient to allay the pain; also copious and frequently-repeated injections of warm water, each of which brought away a greater or less quantity of currant seeds, but not much fecal matter.

Four days after the outset of the trouble the boy had a severe chill. Occasional vomiting, constipation, pain, and tenderness over the whole abdomen, but most marked over lower part of cæcum, completed the history of the case up to the seventh day.

I found the boy with temperature 102° F.; pulse, 84; abdomen rather full, tympanitic, and very tender over its entire surface.

The slightest pressure in front of right hip caused acute suffering. Here, occupying a space of about three by four inches, was a barely perceptible oval elevation, the summit of which was, perhaps, one-fourth of an inch above the general abdominal surface.

By careful palpation this swelling was found to be harder than the surrounding parts, and its outlines tolerably distinct.

Its surface was slightly reddened, but this was probably caused by a sinapism which had been placed there two days previously.

There was no œdema of the surrounding parts.

The right thigh was slightly drawn up, but could be extended without marked increase of pain.

Dr. Cody had already expressed his opinion that an abscess existed there. My examination led me to the same conclusion.

The next day, assisted by Drs. Cody and Carl Muth, I operated.

The first step after etherization was to make a puncture in the skin with point of bistoury, over the prominent part of the tumor, about two inches to the left of right anterior superior spinous process of ilium, through which the small trocar of Steurer's aspirator was pushed on into the tumor until it passed the wall and entered a cavity.

Only a few drops of fluid could be drawn out. This was of a greenish, milky cast, scarcely thicker than serum, but of very offensive odor.

Concluding that it afforded evidence of pus, we resolved to go on with the operation.

It was my intention to dissect down by the side of the tube, but it became accidentally withdrawn during a movement of the patient, and as it was not regarded of great consequence as a guide, the operation proceeded without it.

The incision through the integument was one and one-fourth inches long, parallel with the axis of the body. The superficial epigastric artery was severed and had to be tied.

The dissection was rapidly made through the abdominal muscles, the length of the external incision being preserved down to the transversalis fascia. Here it was deemed best to explore again with the aspirator, this time a larger tube being employed, which was no sooner inserted than a drop of pus was seen to escape by its side.

The knife was then carried through the wall of the abscess by the side of the canula, making an opening three-eighths of an inch wide, through which the pus poured out in a full stream, and both knife and tube were withdrawn.

The slit in the wall of the abscess was then found with the finger, and the blades of the scissors *closed* were carried into the abscess, and opened and withdrawn, as was done with the dressing forceps instead of scissors, by Prof. Gurdon Buck, in case reported in Medical Record, 1876, p. 34.

The wall of the abscess, however, was pretty thick, and this method failed to enlarge the opening to the requisite size, so the ends of the incision were carried on by snipping with the point of the scissors until the opening in the wall of the abscess was as large as the external incision.

The cavity was then explored with the fingers. It

was ovoid in form, the upper part pointing upward and backward. Its capacity was estimated at three ounces. The walls were firm, the lining smooth, and no trace could be found of the appendix vermiformis, unless it formed a part of a narrow ridge which lay upon the upper part of the posterior wall.

The pus was thick, of a brownish green cast, and a decidedly feculent, sulphurous odor.

No currant seeds were found.

A tent of carbolized cotton-wick, and a linseed meal poultice contained in a bag, formed the dressing. The cavity was syringed with carbolized water twice a day for a week, the pus losing its foul odor after two days.

Fifteen days after the operation the wound was healed and the boy was well.

Prof. Erskine Mason says (MEDICAL RECORD, 1876, p. 337): "From cases that have been reported since Dr. Parker first drew attention to the operation, it would seem that the large incision first made was not necessarily indicated, an opening that admits the free escape of pus being all-sufficient."

This means, I infer, that it should be large enough not only to empty the abscess, but also to *drain* it—to guard against too great contraction of the orifice while the cavity is being obliterated.

In my case a cut one and one-fourth inches long proved sufficient. It is probable that a larger abscess would require a larger opening, and I doubt if a smaller opening would answer as well in any case.

CASE II.—By SMITH ELY, M.D.,

NEWBURGH, N. Y.

MRS. R., aged about sixty-four, mother of ten children, widow. Suffered from occasional attacks of pain in right iliac region since last Christmas, which after rest in recumbent position disappeared in two or three days. Present attack begun July 24th, with pain in right side, near the groin, and a small, hard, tender "lump" at seat of pain, but the patient did not take to her bed until the day I saw her, Monday, July 30th.

There was then a tumor in the right ileo-cæcal region, exceedingly tender to touch, extending from just within the anterior superior spinal process of ileum downward and inward five inches, by three inches in breadth. Pulse 90. Temperature 102°. F. Tumor so sensitive that no satisfactory examination as to existence of fluctuation could be made. Patient had taken physic the day before, which had caused thorough movement of bowels. Ordered tr. opii every four hours, and bland nourishment; warm poultice locally, with directions to send word should any change in symptoms occur during day.

July 31st.—Less pain; other symptoms the same. No vomiting, no sweating, no chill. Said if it were not for pain, she could get up. August 1st, received word early in the morning that patient was worse; found pulse and temperature same, but increase of pain, which had caused a sleepless night, and patient begged that something might be done to relieve her. Believing suppuration imminent, if it had not already taken place, determined to make an exploratory operation to evacuate pus if found, and at least to mitigate pain by relief of tension.

Accordingly, with the kind assistance of my friends, Drs. Montfort, Stone, and Gordon, the patient being etherized, an incision three inches long was made over centre of tumor parallel to Poupart's ligament, and careful dissection made through integument, superficial fascia and muscular layers of abdominal parietes to transversalis fascia. Exploration by means of aspirator and hypodermic needle in different parts of tumor giving no evidence of pus, wound was plugged with cotton wool, and poultice reapplied. Tr. of opii to be continued.

August 2d.—Patient had passed a comfortable night, pain almost entirely relieved; tenderness of tumor much less; pulse natural; temperature 101° F.

No change occurred until August 5th (four days after operation), when pain was increased. Upon removing cotton from wound, fluctuation was evident, and upon slight pressure a few drops of pus were seen at bottom of wound; puncture with lancet gave issue to a quantity of fetid pus; opening was enlarged upon director. Cavity of abscess explored with finger, afterwards syringed with tepid water. No foreign body was found, bowels moved naturally second day after discharge of abscess.

No further treatment was instituted, and the wound was healed by 20th of August, when, with precaution of compress and bandage, patient was allowed to sit up.

LIGATION OF THE EXTERNAL ILIAC ARTERY.

TWO CASES, IN ONE FOLLOWED BY LIGATION OF THE COMMON ILIAC.

REPORTED BY EDWARD T. CASWELL, M.D.,

Surgeon to the Rhode Island Hospital.

THE occurrence, a short time since, of three cases of the above operation, in three different hospitals in New York city, within a few weeks of each other, leads me to report the two following cases. They both occurred in the Rhode Island Hospital in the autumn of 1875, in the service of my colleague, Dr. George W. Carr, by whom the operation was in each case performed. They are the only cases of the kind that have been met with in this hospital since its opening in 1868. The report is condensed from the Hospital Record.

CASE I.—Daniel H., age 36, admitted September 2, 1875. Left popliteal aneurism. Four years before, he had, as he says, a pulsating tumor in the right popliteal space. It was induced by severe efforts in pushing over a tree. One month after the accident the tumor "became perceptible to the touch," began to pulsate, grew rapidly in size, and was attended with great pain and with numbness of the limb. This continued for two weeks, when the pain and numbness subsided, and the tumor became smaller and harder. It finally passed away in about a year, leaving the leg in good condition, but not as large or as strong as before.

In April, 1875, while travelling on foot through heavy snow, he suddenly felt a "weakness" in the *left* popliteal space, which lasted for five minutes. At that time he detected a small tumor under the left knee, but paid no further attention to it. For two months he experienced, while walking, considerable pain in the knee and leg. It was not until a month before admission that he noticed an increase in the size of the tumor, with marked increase of pulsation, pain, and numbness. On admission the circumference of the left knee and tumor was twenty and one-half inches; that of the other is not recorded.

Here, then, we apparently have the history of one popliteal aneurism undergoing spontaneous cure, and followed by another in the other popliteal space. In the number of the *American Journal of the Medical Sciences* for October, 1875, I reported a case of double

popliteal aneurism, but in that case the tumors originated simultaneously, and not as here, consecutively.

According to the record, the patient suffered intense paroxysmal pain, with considerable and increasing œdema, and with a sensation described as the "filling of the aneurism," which would occur at irregular intervals, and was attended with the most agonizing pain. Compression and flexion were tried without effect. On October 11th the femoral artery was tied in Scarpa's triangle. The patient seemed to do fairly for several days; the pain diminished, and the size of the tumor is said to have diminished, although the measurements are not given. But the œdema of the leg did not diminish, and on the seventh day after the operation there was an offensive discharge from the wound, and about the same time a spot of discoloration appeared upon the heel. On the twentieth day after the operation hemorrhage occurred from the wound. Unfortunately, the record does not state whether the ligature had come away. This hemorrhage was renewed two or three times, and in such amount that on the 1st November Dr. Carr tied the external iliac of the left side, and finding that this did not control the hemorrhage, at once tied the common iliac, which was found to be atheromatous in the vicinity of the ligature. The patient was slow in coming out from the effects of the ether, and complained of much pain in the abdomen. He did not, however, show any signs of improvement, but grew gradually worse, gangrene invading the whole limb, the aneurism undergoing disintegration and discharging offensive pus. On Dec. 5th a copious hemorrhage occurred, the blood coming, according to the record, apparently from the femoral artery. After one or two slight returns of the hemorrhage he was finally released from his sufferings by death on the 10th of December, two months after the first operation.

Case II.—Thomas C., aged 39, Irish, laborer, married, admitted November 16, 1875. Three months before admission he first noticed a pulsating tumor, midway between the knee and the groin of the right leg. He felt pain in the vicinity of the tumor and in the knee, but kept at work until a week previous to his admission. The tumor was as large as a hen's egg, and on examination a second pulsating tumor, as large as a pigeon's egg, was found high up in the course of the vessel. His health had always been good. The circumference of the thigh over the lower tumor was twenty and three-quarter inches. Compression with shot to the extent of five pounds, afterwards increased to seven and one-half pounds, was tried for several days, and borne with considerable persistency by the patient, although producing pain in the knee and in the testicle, just as if the latter had been struck. On November 25th, after consultation, as no progress had been made, the external iliac was tied by Dr. Carr. In a note to me Dr. Carr says, with reference to the aneurism in the groin, that at the operation it was found to extend up along the course of the vessel, "forming a longitudinal dilatation of at least four inches. The part of the artery I first reached in my dissection was thrice its normal diameter, and I was obliged to extend the dissection an inch or more upward to find a proper place for ligation." Hot flannels and sand bags were applied to the limb, and the patient was placed on low diet. The operation was followed by a slight rise of temperature and of the pulse, but everything progressed favorably, the wound in due time discharging healthy pus. On December 12th a little blood flowed from the wound, but it was ascribed to some superficial vessel. The ligature came away of itself on the 15th December, on the twentieth day after the operation. He continued to do well, sitting up for the first time on January 11th, and on the 31st of that month being allowed to walk about the ward. By the first of March the wound was entirely healed, and on the 8th of that month he was discharged cured. For the past year he has performed hard manual labor without inconvenience.

Providence, August 27, 1877.

Progress of Medical Science.

Foreign Body in the Rectum.—M. Tillaux reports the case of a man, thirty-six years of age, who, in introducing a bougie into his rectum, allowed the whole of the instrument to slip into the gut. Four days later chloroform was administered, and an attempt made to dilate the anus and rectum. The attempt failed in consequence of induration of the walls of the rectum, due to old scrofulous abscesses in the ischio-rectal fossæ. Only two fingers could with difficulty be introduced into the gut, and all the efforts to extract the bougie were ineffectual. On the following day the patient was made to squat down, and large injections of glycerine and water were administered. After three of these injections had been given, the assistant, M. Quenu, succeeded in seizing and extracting the bougie with a pair of forceps analogous to those used in the operation of lithotomy. The patient was seized that evening with severe pains in the abdomen, and died on the next day. At the autopsy an eschar of the intestine was found at the exact point to which the small end of the bougie had reached.—*La France Médicale*, July 28th.

Cicatrization of Large Wounds under the so-called Bordeaux Dressing.—Dr. Azam has collated the statistics of a large number of cases of extensive wounds, especially amputations, which were dressed in the manner peculiar to Bordeaux. In this dressing the aim is to secure immediate union of the entire surface of the wound. Its three cardinal points are drainage, deep sutures, and superficial sutures. After the hemorrhage has been controlled as thoroughly as is possible, a thick drainage tube is laid in the deepest part of the wound—in amputations, behind the bone—and fastened over the limb between the two angles of the wound. The flaps are next united at their bases by deeply placed double sutures of very fine silver wire, and the ends of the sutures are twisted over a piece of a sound. These sutures are from two to three in number, according to the thickness of the flaps, and are situated from four to five centimetres from the edges of the flaps. Finally the wound is carefully closed by harelip pins and twisted sutures, supported by strips of charpie dipped in collodion. The entire part is then enveloped in wadding, except at the places where the drainage tubes lie, which are covered with charpie to soak up the discharge. On the second or third day the harelip pins are removed and the deep sutures loosened. The dressing is renewed every three or four days. Cicatrization is completed in from ten to twenty days.

Dr. Azam saw an amputation of the thigh heal up in ten days, and an amputation of the leg in eleven days. In 202 amputations, of which 63 were amputations of the leg or thigh, there were twelve deaths; out of 30 amputations of the thigh there were five deaths, and out of 33 amputations of the leg there were three.—*Allg. Med. Cent. Zeit.*, Aug. 8th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE SOCIETY SEASON.

THE commencement of the society season is always associated with an increased activity in medical affairs. What the colleges are to the students and professors, the societies are to the profession generally. We do not believe that this latter fact is as thoroughly appreciated by society-goers as it should be, otherwise more care would be taken in the selection of subjects for discussion, as well as in the discussions themselves. As a rule there is too much dependence upon accidental circumstances for an interesting and profitable meeting. With the smaller organizations this may be more or less of a necessity, but with the others the case should be entirely different.

So much depends upon the President and Secretary of each society in securing interesting meetings, that at this time we feel like reminding them of their duties. Of the two gentlemen, however, the former is the most important factor of success. Upon the individual exertions of such an officer a society in this city almost quadrupled its membership in an official term, and made a widespread reputation. The reason for this is, that the profession is always willing to second any effort made in the direction of the self-improvement of its members and the free interchange of opinion.

There is such an abundance of valuable material which is suffered to go to waste for the want of a little exertion in securing it, that there is really no excuse why every one of the numerous medical societies in this and other cities should not be filled to overflowing with subjects. There is hardly a society in the land which does not number among its members experts in almost any branch—men who are capable of leading discussions upon any topic of medical interest. Especially is this so in our large cities; and our brethren in the country, shut out from the advantages of hospital experience, pathological laboratories, and the like, have a right to look to us for a proper utilization of our advantages. That the latter can be done with the least trouble in the society hall is obvious to every one.

The readiest channel for the communication of practical ideas is by means of discussion. In fact, so much interest is taken in the latter that the paper of the evening is oftentimes of secondary importance. Its chief value for a society rests on its suggestive element. Hence, there is no reason why a subject should not be selected merely because it may be old, or that nothing positively new can be said upon it by the author. The very reason why nothing new can be told by one member is an argument in favor of inviting discussion from those who may have had even greater knowledge or more extensive experience.

There are several matters which we should like to see taken up by the different societies, if for no other object than that of reporting progress. Diphtheria, Typhoid Fever, Rheumatism, and Scarlet Fever, are some of the diseases in the treatment of which every practitioner has an abiding interest. We admit that every subject has been handled enough to make it threadbare, but it is evident that discussion must wear them still more before we can unravel many of the hidden mysteries in connection with their respective therapeutical management. We speak advisedly when we say that there is a great demand for practical information upon these and kindred prevalent diseases, and even if there is nothing new to be learned, there is an anxiety to ascertain the fact, if for no other reason than it is satisfying to the consciences of those who wish to be assured that in any given number of cases all the available resources of our art have been known and have been tried. The busy working practitioner is not so much in search of novelties as of practical facts which he can apply in the treatment of his patients, and which will help to establish his reputation as a successful therapeutist. Let those Presidents of societies who wish to infuse an interest in their meetings take the hint. They can rest assured, if they do so, they can rely upon having large audiences, and an extensive publication of their proceedings.

While upon this point we take the liberty of suggesting that the discussions should be carried on with a certain system, that during each evening two or three leaders should be selected to indicate the different heads of the subject, and bring out the experience of the other members. As a rule, we believe that this system has worked very satisfactorily in this city, and we shall hope to see it carried to still greater perfection the coming winter. Of course we shall hear of the habitual society bore, but even he may be a blessing in disguise by filling up a gap and giving other men a chance to arrange their ideas. Such intermissions between the acts generally relieves a strained attention and freshens our interest in the rising curtain.

MEDICAL REGISTRATION IN GREAT BRITAIN.

It would appear, from a recent legal interpretation of the letter of the Medical Act, regarding medical registration in Great Britain, that the system is by no means perfect. In a recent case of flagrant quackery, based upon a bogus American diploma, it was impossible to convict the defendant, because it was not distinctly stated in the wording of the Act that any one whose name did not appear on the *Medical Register* was not legally qualified to practice medicine or surgery. The requisite amendment is now strongly urged, upon the plea that the public have a right to be protected from fraud. The object of the Medical Act was principally to create this *Register* of well-qualified practitioners, thereby offering to the public a ready means of discrimination between those who had undergone a regular course of instruction, and those who, without any real ground, passed themselves off as qualified medical men. The Medical Council is the court of arbitration, and has certain discretionary powers, which do not, however, extend to the acceptance of colonial degrees. In the proposed amendment it is suggested that cognizance be taken of such degrees, with a view of showing fair play to all well-educated foreigners who may wish to settle in Great Britain. This is a liberality of opinion in keeping with the spirit of the age, and should be emulated by all civilized countries. Thus far, thanks to the bogus diploma traffic in this and other American cities, the very name of the American medical diploma is associated in the English Courts with the worst of frauds.

RURAL HYGIENE.

Those of the profession who have been able during the past summer to spend a vacation away from home, have had, as usual, ample opportunities for some practical observations concerning rural hygiene. In proportion as our knowledge of sanitary science increases, we the more anxiously inquire concerning the drainage, drinking water, climatic influences, etc., of the different places we visit. If many of our readers can look back upon their experiences of the past few weeks and conclude that all their sanitary anticipations of their respective retreats have been realized, it will certainly be a matter for present congratulation and for future encouragement. We have reason to believe, however, that the contrary conclusion is generally reached; in fact, taking the country as a whole, we must admit that it is in a fearful unsanitary condition. Even in many of the so-called model farm-houses which throw open their doors for summer boarders, we find the foul and reeking privy-vault in close proximity to a well; the rooms small, close, and unventilated, and the dietary stamped with the most objectionable features of boarding-house management. With many of the fashionable first-class hotels, whether on the mountain or beach, the same objections obtain, and but for the out-door life of the guests, which the season invites, many cases of sickness might have occurred. Fortunately, no cases of hotel sickness have occurred, and this circumstance, considering the protracted droughts, the low level of the water-veins and the baked beds of the countless pools and ponds, is worthy of remark. The religious camping-grounds have been well patronized; and, although much has been done to meet the requirements of a large and crowded population, much more remains to be accomplished before they can be considered safe places to which invalids can be recommended. So far, no cases of serious sickness have been traced to the grounds attributable either to impure drinking water or defective drainage; but this happy condition of things cannot be said to be due to the absence of causes, the active and more direct operation of which is a mere question of time.

Reports of Societies.

AMERICAN DERMATOLOGICAL ASSOCIATION.

First Annual Meeting.

TUESDAY, SEPTEMBER 4.—FIRST DAY—MORNING SESSION.

[Reported by Dr. L. Duncan Bulkley, Secretary.]

The American Dermatological Association convened at Niagara Falls, September 4, 1877, and was called to order at 10 A.M. by the President, Dr. James C. White, of Boston.

There were present Drs. Atkinson, of Baltimore; Brodie, of Detroit; Bulkley, of New York; Campbell, of New York; Duhring, of Philadelphia; Fox, of New York; Hardaway, of St. Louis; Heitzmann, of New York; Hyde, of Chicago; Taylor, of New York; Van Harlingen, of Philadelphia; White, of Boston; Wigglesworth, of Boston; and Yandell, of Louisville.

The Council presented a report of the work done by the officers in preparing for the present meeting. All the members of the Association had been communicated with in reference to the presentation of papers, and when all the titles had been sent in, their place upon the programme was decided by lot.

The Council had also invited a number of gentlemen who were interested in Dermatology, to be present at the sessions of the Association, and a number of dermatologists in other countries to take part in the exercises by their presence, or by the presentation of papers. Responses were received from Professors Hebra, Sigmund, and Zeissl, of Vienna; Köbner, of Breslau; Profeta, of Palermo, Italy; Englested, of Copenhagen; Guibout, of Paris; and Anderson, of Glasgow; also from Drs. Güntz, of Dresden, Tilbury Fox, Hilton Fagge, and Dyce Duckworth, of London. A written communication was received from Dr. Duckworth, and printed pamphlets from Drs. Sigmund, Zeissl, Köbner, Güntz and Profeta. A telegram of congratulation was received from Dr. Güntz just before the opening of the session.

The appointment of the Nominating Committee being the next order, Drs. Van Harlingen, Wigglesworth and Hardaway were chosen by ballot.

Drs. Atkinson and Brodie were appointed to audit the Treasurer's accounts.

PRESIDENT'S ADDRESS.

The President then delivered his Annual Address, reviewing the progress of Dermatology in America during the past twenty-five years, and the gradual recognition of the branch in the colleges of the country. The objects of the American Dermatological Association he held to be: First, the formation of acquaintances between those interested and engaged in forwarding the same branch of medicine; Second, by the discussion of subjects and a comparing of opinions, the founding of what may rightly be called an American School of Dermatology; Third, the study of diseases of the skin especially as they appear in America, and for the purpose of securing this properly he suggested the appointment of a Committee on Statistics, for the collection of data; Fourth, the establishment of a nomenclature which will serve as a basis for reporting cases uniformly, for which he would suggest a Standing Committee on Nomenclature; Fifth, to interest the profession and public in the branch of Dermatology.

Dr. Bulkley moved a vote of thanks and the appointment of a committee to report in regard to the suggestions contained therein—carried.

A paper by Dr. Brooks, of Chicago, was then read, on "Acute Conditions of Disease excited by Iodide of Potassium." When employed in unusually large quantities within a brief period, he had found these symptoms to follow, in a considerable proportion of cases, namely, fever, arthritis, and iritis. These he considered quite distinct from the same manifestations of syphilis, and thought them gouty in character, this state being excited by the large doses of iodide. The remedy suggested was the employment of tincture of colchicum with calcined magnesia in purgative doses.

Dr. Taylor had given ʒiss. of iodide of potassium in the day, reached by increasing doses, without such manifestations.

Dr. Atkinson had seen nasal trouble from gr. x.–xv., three times daily, but had again seen ʒij. taken three times daily for a month by the same patient, without unpleasant symptoms, after tolerance had once been attained.

Dr. Taylor believed that if the remedy were increased slowly, much larger doses could be reached; a combination of bromide of potassium with the iodide rendered the use of a less quantity of the latter possible.

Dr. Duhring remarked that no allusion had been made in the paper to the very important and well-known effect which iodide of potassium may have in producing lesions on the skin. He mentioned a case presenting unusual features in a boy of eighteen, who had applied for the treatment of a patch of chronic eczema. There had developed a vesicular eruption, very acute in character, covering the backs of the hands and arms to such a degree that they much resembled a case of confluent small-pox. The vesicles were of a size from that of a large pin-head to that of a large split pea; there was no disposition to rupture; the contents remained clear from five to seven days, then became turbid, and dried up. They occupied the extensor surfaces of the hands and fore-arms more than the flexor, and were very much more marked on the backs of the hands and sides of the fingers than on the palms; there was one large vesicle on the sole of the left foot, and others forming, some on the toes, and a few on the abdomen. The eruption on the hands resembled very much that of scabies, dysidrosis and confluent small-pox; he had never seen dysidrosis as severe as this, nor as severe as the cases of Dr. Fox; the present eruption had lasted three days. Dr. D. learned that the patient had been taking grs. x. of iodide of potassium three times daily for three or four doses; the drug was stopped, and the eruption began to disappear; after a few days the iodide was given again, and the lesions reappeared; he was then lost sight of.

Dr. Van Harlingen, who saw the case, added that the vesicles were umbilicated, like those of small-pox; there was no fever; the pulse was normal.

Dr. Duhring, in response to a question, said that the lesions had a boiled "sago-grain" appearance, as though there were something within them other than serum; when pricked they did not collapse at once, but oozed slowly. He thought the term iodide of potassium eruption inappropriate, inasmuch as it signified very little, because various anatomical lesions can be produced by the drug, even on the same person.

Dr. Hyde had given ʒiss. three times daily for a week, in one case; had never employed so large a dosage in any other case; he had seen some of the effects described by Dr. Brooks produced by small doses of iodide of potassium, in the beginning of its use, though he had never seen any iritis which he could attribute to the drug; he thought that a careful distinction should be made between conditions occurring during the existence of disease and those attributed to the medicine. In regard to the quantity of the iodide of potassium prescribed, he believed that Dr. Brooks occasionally gave as much as 1,000 grains in the day.

Dr. Taylor had seen arthralgia produced by grs. xv. given three times daily; he recalled the erythematous condition on the face and hands following the use of even small doses, and questioned if the joint difficulty was not produced by a similar erythematous condition of the synovial membranes. He had never seen iritis dependent upon iodide of potassium, but had observed an aching pain through the sclerotic.

Dr. Hardaway mentioned a case of tubercular meningitis where four or five grains of iodide of potassium, given thrice daily, produced an intense urticaria; the dose was reduced, and even one-half grain caused the reappearance of the urticaria; the eruption had a purpuric tendency, the blood-stains remaining several days.

Dr. Bulkley asked Dr. Duhring to give the reasons for excluding the so-called dysidrosis in the diagnosis of the case he had mentioned. The description Dr. D. had given answered so completely to that of Fox and Hutchinson, and to the appearances observed in a very severe case by Dr. A. R. Robinson and himself, that he should have regarded it as one of this disease; this case is fully described by Dr. Robinson, with drawings of the microscopic appearances of sections, in the *Archives of Dermatology* for July, 1877, and need not be here detailed. In this, as in other cases, the eruption ran its course, and reappeared again and again, and Dr. B. asked Dr. Duhring if the occurrence at the time of the administration of the iodide might not be a coincidence, as the case had not been watched in its further development.

The time for adjournment having arrived, the further discussion was deferred until another occasion.

FIRST DAY—AFTERNOON SESSION.

Dr. Bulkley read a paper entitled

"ON THE ECZEMA MARGINATUM OF HEBRA (TINEA TRICHOPHYTINA CRURIS), AS OBSERVED IN AMERICA."

In it he gave the details of twelve cases which went

to show that the disease presents much the same features in this country as abroad, but that it is, as a rule, milder in its course. He gave the credit to Bärensprung for having been the first to describe the disease carefully and accurately, under the term herpes inguinum, five years before Hebra published the first edition of his book, wherein it is called eczema marginatum. Dr. B. found a parasitic fungus in all of the cases in which he searched—ten, and all the patients were treated by the free external use of sulphurous acid; he desired to urge the value of this in the vegetable parasitic diseases, and attributed failures in the hands of others to its use in a diluted form, either artificially, or by a natural evaporation of the gas, or, by a change of it back into sulphuric acid, which would prove useless as well as irritating to surfaces thus diseased.

Dr. Heitzmann remarked that the descriptions corresponded very closely with the disease as seen in Europe. The writer had criticised Hebra's treatment of eczema marginatum; he had found Wilkinson's ointment effectual in six days; he would, however, think well of sulphurous acid.

Dr. Duhring had seen the disease abroad, both in Hebra's wards and in France and England, but for some years past had seen no cases here until recently; of late he had observed cases resembling somewhat the milder ones described by Dr. Bulkley; he thought that this disease, as well as many others, occurred in a milder form in Philadelphia than in New York or Boston. He would call it simply tinea circinata cruris, and thought that great care should be exercised in distinguishing between ordinary eczema and eczema marginatum.

Dr. White said that he had observed three different types of the affection under consideration: 1. Tinea circinata of the usual type; 2. Eczema and tinea circinata occurring together, the eczema sometimes disguising the tinea; these cases were somewhat rare; 3. He had also sometimes met with a disease resembling the eczema marginatum described by Hebra, occurring on the thighs, axillæ, etc. In these cases he was sometimes unable to assert positively whether eczema or eczema marginatum were present without the aid of the microscope. Occasionally he was unable to find the parasite even when the various symptoms of eczema marginatum were present. Dr. White agreed with Dr. Heitzmann in regarding Wilkinson's ointment a valuable remedy; he was much more apt to resort to it in hospital practice than to sulphurous acid.

Dr. Bulkley had seen the disease under Hebra, and certainly never saw there any cases as mild as those here detailed. Dr. B. could not quite understand the distinction drawn by Dr. White, but he believed that when the well-defined border made its appearance that was the signal of the presence of the parasite; he held that the therapeutic argument was worth something in this affection, for in cases where the treatment for eczema failed, sulphurous acid would often be found to succeed; the latter would irritate instead of cure an eczema, as he had himself demonstrated clinically.

Dr. Van Harlingen read upon

"THE PATHOLOGY OF SEBORRHŒA,"

and claimed that the scaly affection known as dandruff was not in all instances, properly speaking, a disease of the sebaceous glands, but rather one affecting the outer layers of the epidermis, and should be called pityriasis simplex rather than seborrhœa or acne sebacea, as is commonly the case. The paper was based on an examination of the scales and débris scraped from the surface, and in the affection named, after extracting the oil by ether, and drying the residue, the loss of weight was comparatively small, and under the microscope the scales represented those of the outer epidermal layer of the skin.

Dr. Fox remarked upon a variety of pityriasis of the scalp, in which there was a general exfoliation of the epidermal layer, which, together with some sebum which was present, formed a mass which adhered also to the roots of the hair in the form of sheaths; this under the microscope was composed almost wholly of epithelium. He also referred to a case which had been exhibited at the New York Dermatological Society, where the glans penis was completely enveloped by a membrane of whitish color, which could be separated from it, and which the microscope showed to be composed entirely of epithelial scales; it resembled much the covering sometimes formed by sebum over the glans. He thought the exfoliation of the epidermis in this case was analogous to that occurring on the scalp in pityriasis.

Dr. White said that this condition he had once observed in one case to be the beginning of the formation of a horn upon the glans penis. He saw the case two years before the horn appeared; there was first a thickened mass, which could be dug out, like putty, from behind the corona; the horn which grew was large and long.

Dr. Van Harlingen, in answer to a question, said that he would regard pityriasis simplex as a separate affection of the scalp, distinct from seborrhœa. Modern dermatology seemed to be settling down to but one pityriasis, that known as pityriasis rubra; he would claim at least one other affection meriting the title, the scaly one of the scalp now under consideration.

Dr. Fox read a paper on

"MOLLUSCUM CONTAGIOSUM."

It was based upon twenty-four cases which had fallen under his personal observation. He was not able to trace the contagious element with certainty in any proportion of the cases, but he had noticed what he thought a curious, if not important coincidence, in the occurrence of ordinary warts on many of the patients or their immediate families. He expressed no opinion in regard to the contagiousness of warts, but thought the subject of sufficient interest to warrant further investigation as to the simultaneous appearance of these two skin lesions.

Dr. Fox, in answer to a question, stated that he had seen the peculiar, round, shiny, "molluscous elements" described by Virchow, in the microscopic examination of these tumors of molluscum.

Dr. Heitzmann had examined two cases microscopically; had found a fatty epithelial degeneration, and the bodies which Virchow had held to be the carriers of the contagion. He believed that there was some propriety in associating warts with molluscum contagiosum; some local irritation took place before the development of both. Discharging tubercles of this disease will have others around them; women with leucorrhœal discharges may have them upon the thighs, and blennorrhœa induces what are known as venereal warts; these latter may occur elsewhere than on the penis as the result of the irritation of this poison; he had seen them on the face in one case. He had also seen a large crop of ordinary warts begin on the hands of a gentleman as the result of laboratory work. Local irritation would not always produce papillomatous growths, but in certain cases there is the predisposition which renders the local agent active.

He did not regard the molluscum contagiosum as contagious in the ordinary acceptance of the term.

Dr. Fox, in answer to a question, said that about one-third of the cases occurred in families where more than one member was attacked; these were mostly children. He thought that in one-half the cases some other member of the family had, or had had, the disease.

Dr. Duhring could not recall any cases where there seemed to be any connection between this disease and ordinary warts, or even where the latter were present. On questioning, it was found that no one present could.

Dr. Hyde remarked that often, when one would expect venereal warts from the local irritation, none were found, whereas, presently, when we do not look for them, they occur; he thought some vaginal secretions especially productive of them, as they had seemed to cause them after gonorrhœa failed.

Dr. White spoke of the treatment of molluscum contagiosum. He had recently prescribed a means which he had found serviceable in ordinary warts: these latter he orders to be pared down, and then to have them moistened, and pulverized muriate of ammonia to be applied, as much as will adhere. In the case of molluscum, he had had the remedy bored into the masses with a stick moistened and dipped into the same.

Dr. Hardaway had treated ordinary warts successfully by means of electrolysis: transfixing the base with a needle attached to the negative pole, and placing the positive in the hand of the patient, he passed a current from two or three cells through it for several successive days.

Dr. Fox had not given much treatment to his cases of molluscum; where they were cut off for microscopic examination he had thrust a stick of nitrate of silver into the base. This he considered the best treatment.

Dr. Duhring had met with molluscum contagiosum several times in private practice; but many present had seen it only among the lower classes of society.

Dr. Wigglesworth had himself had molluscum contagiosum in half a dozen scattered tubercles, which began to appear about two weeks after squeezing the contents from the tubercles on a case of this disease: he was, however, sceptical in regard to the contagiousness of the disease in question.

Dr. Atkinson had observed it in his own child, there being three small mollusca.

Dr. White had seen several cases in the hospital, in patients who, from their station in life, should have been private patients.

Dr. Duckworth, of London, had sent a paper on

"THE TREATMENT OF SEVERE BED-SORES,"

which was read by the Secretary.

He advised the continuous use of a large poultice, covering the entire surface of the bed-sore; balsam of Peru may be added, if the condition of the sore requires it, or the cataplasma carbonis of the Pharmacopœia may be used. This is the method followed with much success in the St. Bartholomew's Hospital.

Dr. Hyde did not agree with the writer in regard to the value of poultices to bed-sores. He had seen very many of the latter during the late war, and had seen this method tried and abandoned. He mentioned the occasional irritating character of the oil of the flax-seed; he had seen effects resembling hay-asthma following the application of flax-seed poultices.

Dr. Wigglesworth's paper on

"FAULTY INNERVATION AS A FACTOR IN SKIN DISEASE,"

was read only by title, it not being yet ready on account of his previous sickness.

The Association adjourned at 6 P.M.

WEDNESDAY, SEPTEMBER 5.—SECOND DAY—MORNING SESSION.

Business meeting at 9 A.M.

The Report of the Treasurer and Auditing Committee was read and accepted.

The Nominating Committee reported the following list of officers for the ensuing year, who were subsequently elected:

For President—Dr. James C. White, of Boston.

For Vice-Presidents—Dr C. Heitzmann and Dr. L. Duncan Bulkley, of New York.

For Secretary—Dr. R. W. Taylor, of New York.

For Treasurer—Dr. I. E. Atkinson, of Baltimore.

The following gentlemen were elected members of the Association, on the recommendation of the Council; Drs. Wm. H. Geddings, of Aiken, South Carolina; Silas H. Durkee, of Boston; Frank P. Foster, of New York; and S. Sherwell, of Brooklyn.

The following were elected honorary members: Professor Ferdinand von Hebra, of Vienna; Erasmus Wilson, F.R.C.S., of London; and Dr. C. Hardy, of Paris.

The Committee on the President's Address reported the following for adoption:

"The American Dermatological Association agrees in each and every respect with the views laid down in the President's Address, and appoints the following standing committees:

1. *On Statistics*, consisting of: Dr. White, for Boston; Dr. Bulkley, for New York; Dr. Hyde, for Chicago; Dr. Atkinson, for Baltimore; Dr. Van Harlingen, for Philadelphia; Dr. Brodie, for Detroit; Dr. Hardaway, for St. Louis; and Dr. Yandell, for Louisville.

2. *On Nomenclature:* The President, *ex officio*, as Chairman, with Drs. Duhring, Taylor, Wigglesworth, and Heitzmann.

The bibliography of articles written by members of the Association and others, as presented by the President, was recommended to be published with the President's Address, in the proceedings of the Association.

The Council recommended the following changes in the by-laws, which were adopted: Section I. to be altered so as to read: "The annual dues shall be five dollars, to be paid at the beginning of each year. Any member who is in arrears for more than one year shall be dropped from the roll by vote of the Association." Section III. to be amended so as to read: "The titles of all papers to be read at any annual session shall be forwarded to the Secretary not less than *two* months before the first day of the session, and the titles announced in the notices of the meeting."

The Council also announced, in accordance with Article VIII. of the Constitution (which provides that notice of a proposed amendment shall be given in writing at the annual meeting immediately preceding the one in which it is to be acted upon), that it would, at the next annual meeting, propose to add the following clause to Article IV., namely: "The Association shall have the power to declare forfeiture of membership in the case of any member who ceases to exhibit an active interest in the science of dermatology."

The Association, on the recommendation of the Council, decided that it was not expedient to publish a separate volume of Transactions during the present year; the Proceedings were to appear in the *Archives of Dermatology*, and the Council to return to the authors papers which had been read and accepted, that they may publish them where desired.

Dr. Campbell read a paper on

A CASE OF TRUE PRURIGO OF HEBRA.

The boy, aged 11, had exhibited the eruption since two years of age, and presented all of the features recognized to be characteristic of the disease.

Dr. Duhring had seen the case, and was impressed with the correctness of the diagnosis. It was only the second case which he had seen in this country—the other being seen in Boston, a patient of Dr. Wigglesworth, a boy of fourteen. He had, however, seen one in a girl aged twenty, which presented many of the symptoms, and which for a while he thought to be one of true prurigo, but subsequently he had doubted the diagnosis. The girl was in the hospital a number of years, and died while he was absent, and no necropsy was obtained.

Dr. Hyde had seen one case which he considered prurigo.

Dr. Fox saw the patient under consideration, and had no hesitancy in pronouncing it to be one of true prurigo. He had seen one other case of this disease, in a boy five or six years old, which he had exhibited before the New York Dermatological Society. The disease first developed at two years of age, and had remained present since. He had also exhibited another patient before the Society, in whom a chronic eczema so resembled prurigo that the diagnosis between them was difficult.

Dr. White had never seen a case of true prurigo in this country, and believed the disease to be very rare outside of Germany. He had seen a number of cases in which the eruption resembled prurigo very much, but he did not regard them as such. He believed that the diagnosis could not be made on the appearance of the eruption at any one time; the case should be kept under observation, as its character may change.

Dr. Wigglesworth regretted that Dr. White had not seen the case which he had reported in the *American Journal of Syphilography and Dermatology*, January, 1873, and already alluded to by Dr. Duhring. He had seen one other case since that time, which answered in every respect to the disease, except that it did not appear first in infancy; it had begun first when he was from twelve to fifteen years of age, and at the time of observation the man was 40 years old.

Dr. Bulkley had seen Dr. Campbell's case, and examined it several times, and agreed wholly as to the diagnosis. He had also seen the one exhibited by Dr. Fox at the New York Dermatological Society, and also another case, which Dr. Taylor had observed for a long time, and could describe more perfectly than he, making in all three undoubted cases of prurigo. He had also watched a case for a long time, which he considered at first to be prurigo, but as there was some doubt in his mind he did not wish it to go on record as an authentic case.

Dr. Taylor spoke of the case alluded to by Dr. Bulkley. The patient was a Jew, born in Austria, forty years old. The disease had begun in early life, was under observation fifteen to eighteen months, and grew progressively worse during that time.

Dr. Heitzmann was familiar with the disease abroad, but had not yet seen a case in this country.

Dr. Yandell had seen one case, which at the time he considered prurigo, but now doubts the diagnosis.

Dr. Bulkley remarked that the total of the experience of the gentlemen present footed up but six cases of undoubted prurigo in this country; there were three doubtful cases mentioned, and several of the gentlemen had never seen a case in this country.

Dr. Hyde read a paper on

THE IMMUNITY OF CERTAIN MOTHERS OF CHILDREN AFFECTED WITH HEREDITARY SYPHILIS.

He reviewed the subject of paternal and maternal infection in syphilis, showing that when there was an immunity of certain mothers, it was only apparent; that is, the mother did not fail to manifest the poison because pregnant, but she probably escaped infection—the poison being communicated to the offspring alone by the father. He argued also against the so-called "syphilis by conception," believing that as the blood of the father is contagious, direct infection may take place by means of an abrasion, without the necessity of supposing an infection through the ovum. He believed, moreover, that it was more than probable that Colles's law would be found true in regard to the father as well, namely, that although non-syphilitic, he is never infected from his own syphilitic infant.

Dr. Hardaway thought that the law of Colles admitted still further application, namely, that a child born of a syphilitic mother, even though it show no signs of syphilis, was incapable of acquiring the syphilis after birth from the mother.

Dr. Taylor believed with Kassowitz that the child may be infected by the father alone, while the mother remains free, as opposed to the view of Cullerier, who denied paternal infection.

Dr. Atkinson maintained that the syphilitic poison was capable of transmission by any of the elements of the body, blood, sperm, lymph, etc., and was even transmitted by means of the protoplasm, as is evidenced by the infection of the child by the mother through the membranes of the placenta.

Dr. Heitzmann read a paper entitled

ON THE RELATION OF IMPETIGO HERPETIFORMIS TO PEMPHIGUS.

It was based on the report of a very interesting case of the former eruption, which afterwards developed characteristic lesions of pemphigus. While not regarding the two affections as identical, he considered them to be closely related, and probably both due to the same cause, yet unknown. Hebra's cases had all occurred in pregnant women, this one of Dr. H.'s during the climacteric period, independent of any disease of the genital organs.

Dr. Fox thought that the elementary lesions were often too much studied in skin diseases, whereas they are only one element in the case. Thus, the term pemphigus is applied to eruptions to which it is inappropriate, simply because of the bullous character of the lesion; the term pemphigus should be restricted to the chronic, fatal form, also to acute forms which are severe and fatal, whereas there are other eruptions presenting bullæ, which are similar anatomically, but the disease is of a very different nature. To these he would apply the provisional name hydroa. The cause in the one case is temporary, in the other permanent.

Dr. Duhring had never seen a case similar to the one of Dr. Heitzmann. He asked if he regarded the disease in the case mentioned as a variety of malignant pemphigus? The lesions of pemphigus varied, there being sometimes pustules rather than bullæ.

Dr. Heitzmann was doubtful as to the true relations of the diseases. He was inclined to retain the name impetigo herpetiformis, as at first there were only small pustules.

Dr. Bulkley asked in regard to the use of arsenic in this case, and alluded to its very great efficiency in pemphigus.

Dr. Heitzmann said it had been given in moderate quantity.

Dr. Bulkley said that much in the case reminded him of one of gangrenous pemphigus, which would be reported in the October number of the *American Journal of Medical Sciences*, in which arsenic twice appeared to save life. Early in the disease the case had been mistaken and treated for one of syphilis by those in attendance, there being lesions within the mouth also in this case, which partly led to the confusion. The pulpy condition of the base of the bullæ corresponded much to that described in Dr. H.'s case. He would hardly think that arsenic had received a fair trial in the case reported by Dr. Heitzmann. It is necessary in such cases to increase the dose rapidly, and to take the remedy every few hours, even until some toxic or physiological effects were produced. In the case referred to, the improvement after a few good-sized doses of arsenic was marvellous.

The Association adjourned at 1.30 P.M.

Second Day—Afternoon Session.

Dr. Hardaway read a paper entitled

THE LYMPHATIC THEORY OF SYPHILITIC INFECTION, WITH A NEW VIEW OF THE RELATION BETWEEN THE CHANCRE AND CHANCROID, WITH SUGGESTIONS FOR THE RADICAL CURE OF SYPHILIS.

He entered fully into the literature of experimental and clinical evidence of the absorption of the syphilitic virus through the lymphatic system, demonstrating the same very conclusively. He believed that the chancre and chancroid were both caused by the one virus, their differences being due to a greater virulence in the case of the latter, or to be a pyogenic predisposition in the person infected. Purulence is opposed to infection, and when the virus has been rendered purulent by irritation, there is induced profuse suppuration in the tissues where it is implanted, and as a consequence it (the syphilitic virus) is not generally absorbed even by the lymphatics, and a purulent ulcer or chancroid results; when it is absorbed acute suppuration of the neighboring glands occurs, an eliminative process, and the malady remains local. The proposal for the radical cure of syphilis was the very early excision of the enlarged and indurated glands in the groin, before the poison had passed them and affected the next set of glands within the pelvis. This, of course, could be done only in cases where the case was watched from the beginning.

Dr. Atkinson was much in accord with the writer. The idea that the induration of the chancre was essential to infection was being abandoned, because of the fact that induration is such an uncertain element to determine in every case, therefore the practical results were uncertain. Aside from any peculiar contagion of the chancre or chancroid, all pus is contagious to a certain degree. Now, by repeated inoculation and development, the pus may become so virulent that it is incapable of being absorbed on account of the local irritation which it excites, and the result of the contagion remains local. May not this be the origin of syphilis, namely, a pus which has undergone some change in development, and when this proceeds still further, the more highly poisonous pus is arrested at its point of entry, and results in the chancroid. This arrest is a salutary measure, otherwise the results of the purulent infection might be more destructive of life than syphilis itself. In dissecting wounds, a smaller amount of less virulent poison is absorbed, and infects the system; when the virus is very irritating it is not absorbed, but produces a local sore only.

Dr. Hyde thought that conclusive proof existed that syphilitic, as also other infections, took place through the agency of the lymphatic system. He recalled the experiment of Moser, who laid bare the lymphatic duct in a horse, and injected therein the pus of horse-pox, with the result of having the neighboring glands swollen, and a subsequent development of the constitutional disease.

Dr. Heitzmann criticised some of the experiments and reports quoted in Dr. Hardaway's paper. It is difficult to determine anything definitely from data thus disjointed; some of the observers were reliable, others were not. He believed that ultimately the microscopic study of living matter will determine the true relations of such poisons as syphilis. In healthy persons, the white corpuscles are more coarse and granular than in those with health broken down, as tuberculous patients. Pus-corpuscles also present different characters under different circumstances. He believed that there was evidence enough that the white corpuscles convey the poison, and thought the suggestion made of extirpating the infected lymphatic gland a natural one, but he thought it an unreliable method, probably because of the difficulty of determining in advance exactly when it will be successful.

Dr. Taylor read a paper

ON THE XERODERMA OF HEBRA,

in which he detailed the histories of seven cases of this rare affection; five of them existing in two families. The disease began in very early life, and had progressed continuously. Photographs of five of the cases were shown.

Dr. Heitzmann had seen previously four of these cases, and had made the same diagnosis. He had also seen in Vienna the two cases described by Kaposi, and he had had another case under treatment in this country, making eight in all. The case referred to as under treatment is in a man aged forty years, who had had the disease thirty or thirty-one years. There were freckle-like patches on the face and hands, and an ulcerative lesion on the left cheek, which he first called rodent ulcer. He had removed this with the sharp spoon four times. One month ago he removed in the same way four new nodules. They seem to recur about every six months. The wounds heal very kindly after the operation. Microscopic examination of the masses removed shows epithelial cancer, as the masses were called by Kaposi in his case. There was certainly an epithelial new formation, but there were none of the epithelial nests characteristic of this disease.

Dr. Bulkley remarked that three or four of these cases had been exhibited by Dr. Weisse before the New York Dermatological Society several years ago. The name then given to the cases was multiple pigmentary nævi, with lupoid degeneration, which seemed to him to express the clinical features of the disease far better than the term xeroderma, which in this country, as also in several others, indicate quite a different affection.

Dr. White called attention to the affinity of this disease to other pigmentary affections, especially to the morphœa, as described by Wilson. In this the erythema often persists for a long time, and is then followed by atrophy. The new formations are rather accidental features in the disease, which may take place in other affections as well.

Dr. Heitzmann thought Hebra's designation of xeroderma a correct one, as he considers the atrophic element important.

Dr. Duhring had never met with anything closely resembling these cases, but he thought the resemblance to morphœa, the old keloid of Addison, traceable in some features. In the case of a young lady, an abun-

dant and marked feature of the disease were lesions resembling telangiectasic spots, covering a definite area, lasting for a while and changing into deep pigmentation, which latter again underwent resolution. He thought it difficult to determine certainly if morphœa were an hypertrophic or atrophic affection, but inclines towards the latter.

Dr. Yandell read a paper entitled

THE ETIOLOGY OF CUTANEOUS DISEASES.

In it he claimed that aside from parasitic diseases, syphilis, etc., the large majority of acute diseases of the skin, as eczema, urticaria, erythema, etc., were caused by malaria, while the chronic affections were due to scrofula. He instanced the universal prevalence of the malarial poisoning, and that the negro race, who are usually so free from its effects, are likewise remarkably free from the acute eruptions on the skin.

Dr. Bulkley asked Dr. Y. if he had treated cases of eczema by quinine alone, without any other external or internal remedy, and cured them; especially had he treated infantile eczema thus?

Dr. Yandell said that he had.

Dr. Atkinson asked why it was that negroes, who are more prone to scrofula than individuals of any other race, did not have the skin diseases which he attributed to this cause; they should, on his supposition suffer more from them, whereas they are unusually free from all cutaneous maladies.

Dr. White asked, if, in the opinion of the writer, these acute skin diseases could occur without a malarial origin?

Dr. Yandell replied, that any agent causing poverty of blood, as alcohol poisoning, starvation, etc., could have the same effect.

Dr. White thought that Dr. Y. undoubtedly saw skin diseases in patients with malaria; but intermittent fever is unknown in Boston, and he believes that these eruptions will not be found by statistics to be more abundant in malarious regions than in those where this influence does not exist. He granted that skin diseases could be *influenced* by malaria, in periodicity, etc., but thought that they could not be thus caused.

Dr. Bulkley was certain that the malarious element was of little or no account in this class of affections in New York City; he would like very much to have the matter referred to the Committee on Statistics for investigation and the collection of data.

Dr. Heitzmann remarked, that the same subject of the influence of malaria in the production of skin diseases had been brought up by Dr. Poor, of Pesth, in Hungary, more than ten years ago, and had been entirely disproved in Hebra's clinic.

Adjourned at 7 P.M.

Thursday, September 6th.—Third Day.—Morning Session.

It was voted that the council be directed to have the President's Address, together with the bibliography attached, printed with the Proceedings of the Association.

The Association having lost one of its members, Dr. H. C. Hand, of St. Paul, Minnesota, by death, Dr. Fox was appointed a committee to draw up appropriate resolutions. The following was offered and adopted, and ordered to be inscribed on the minutes, and a copy transmitted to the family of the deceased:

"*Resolved*, That in the death of Dr. H. C. Hand, the American Dermatological Association has lost a member whose character and attainments were such as to command the admiration and win the love of all who knew him."

Dr. Duhring read a paper entitled

CASE OF AN UNDESCRIBED FORM OF FRAGILITAS CRINIUM.

It had reference to a gentleman, the skin of whose bearded face presented erythematous and scaly patches which appeared to be due to a splitting of the hair within the follicles. The hairs could be extracted without pain, and were largely found to be thus affected. When the beard grew long the splitting caused great annoyance; if, however, he shaved daily, but little trouble was experienced. The hairs were shown beneath the microscope, also drawings of the same.

Dr. Hardaway had had this same patient under observation for some time, but could add very little to what Dr. D. had said. He had seen him lately, and the patient, who is an intelligent physician, thinks he is better. He had contracted syphilis from a wound on the finger, and was now suffering from the constitutional symptoms.

Dr. White asked if the splitting begins *within* the follicle, and if the hairs grew to a half-inch in length, would the splitting still be *within* the follicle?

Dr. Duhring said that at the end of ten days' growth of hair the splitting was very great; it appeared to take place directly at the surface or within the follicle. He regarded the process essentially as an atrophy, although certain portions of the hairs appeared as if hypertrophied.

Dr. White could not see how there could be both atrophy and hypertrophy in this case; after the hair is once formed he could not understand how it could increase outside of the follicle. He thought the increase in size only apparent, caused by the separation of the composite parts of the shaft, as in the case of the disease described by Beigel, where the bulging takes place in the shaft, and the masses appear as if hypertrophy had taken place. He had seen cases of this disease; the hair broke off and then the splitting would continue down to the hair; he thought that possibly the splitting might have begun outside the follicle and have continued down into it in the case of Dr. Duhring. He suggested epilation as a therapeutic measure in this case, to be repeated and continued for some time, to cause, as it were, the hairs to begin anew. He inquired if the erythematous state of the skin were a primary or a secondary affair?

Dr. Duhring could not answer this; he had thought that the distention of the hair within the follicle had caused the hyperæmia.

Dr. Bulkley read a paper upon

TWO CASES OF VERY LATE HEREDITARY SYPHILIS.

They were presented rather to introduce a discussion of the subject of the very late manifestations of skin lesions in the subjects of inherited syphilis. The cases were in females of twenty-three and twenty-four years respectively, in the former a gummy ulcerating syphiloderm had first appeared within a year; in the other case there had been a recurring or almost continual small tubercular eruption since seven years of age.

Dr. Taylor had seen several cases of late hereditary syphilis, but is sceptical of skin lesions appearing after twenty years of age; he thought that later lesions would be more apt to be bony, and that the skin enjoys an immunity after the age of twenty years.

Dr. Atkinson referred to his case, published in the Archives of Dermatology for January, 1877, of syphilis inherited through two generations. In this instance the eruption had reappeared since the case was published; that is, at about the twentieth year.

Dr. Bulkley said that there could be no question in regard to the syphilitic character of the eruption in

the cases reported; in the first case, a large share of the indications of hereditary syphilis were present, the teeth were most typically notched and deformed, the history of the mother in regard to syphilitic eruptions, abortions, etc., were perfect. The girl had certainly not acquired the disease, and the gummy masses were yielding rapidly to antisyphilitic treatment. He differed entirely from Dr. Taylor in regard to the immunity of the skin late in hereditary syphilis; these cases were rare, but others had been observed as well.

Dr. White, speaking in regard to the value of the notched teeth, said that he knew of a case of a boy who presented the central incisors notched from side to side, and the lateral incisors wanting, where the suspicion of syphilis was excluded with the most absolute certainty; all the other teeth were normal. The deformity followed a sudden and severe attack of inflammation of the glands of the neck.

Dr. Bulkley recognized and had been accustomed to point out deformities of the teeth which often resembled those recurring in hereditary syphilis, and he believed that the practised eye could determine with very great certainty those due to the action of the syphilitic poison and those dependent upon scrofula, acute sickness, etc.

Dr. Van Harlingen exhibited some leaden tubes, such as are used to hold liquid paints, which he had employed to contain ointments; he had gotten the suggestion from some French source. They are particularly serviceable when travelling, or when ointments were to be kept a long time; he had found diachylon ointment to harden from exposure to the air when dispensed in the ordinary manner.

Dr. Bulkley suggested that he had found that a layer of water placed over the surface of diachylon ointment preserves it perfectly.

Dr. White at first had difficulty with this ointment, but now he has no trouble in keeping it at any time; it is always soft and of the consistency of butter. He is careful to always have only the best olive oil used, and a small portion of oil of lavender is added.

Dr. Heitzmann said that there was no difficulty in Vienna with the diachylon ointment; the main point to be observed in making it is always to boil it over a water-bath. When there is no counterindication he adds balsam of Peru (℥ i. ad ℥ i.); it keeps better, and the fragrance is pleasant.

Dr. Duhring adds a few grains of benzoin to the ounce.

Dr. Robinson's paper on

THE PATHOLOGICAL HISTOLOGY OF PSORIASIS

was read only by title, owing to the absence of the writer.

Dr. Wigglesworth's paper on the

AUTO INOCULATION OF VEGETABLE PARASITES, AND THEIR NON-IDENTITY,

was read only by title, as also that of Dr. Taylor, on

AFFECTIONS OF THE TESTICLES IN HEREDITARY SYPHILIS.

It was moved and carried, that the Association direct to be printed at the beginning of its Proceedings the following:

"In accepting papers read before it, the American Dermatological Association by no means indorses all or any of the opinions expressed in them."

A vote of thanks to the proprietors of the "Cataract House" for courtesies extended to the Association, was unanimously passed.

The Association adjourned to meet next at Saratoga Springs, on the last Tuesday in August, 1878.

Correspondence.

GUTTA PERCHA TISSUE.

To the Editor of the Medical Record.

Sir:—The drug shops now contain a preparation of gutta percha which will be found very convenient for some surgical uses.

It is rolled out in sheets about one yard wide, and as thick, or rather as thin, as fine French writing paper.

Both surfaces are perfectly smooth, of a satiny lustre, and the sheet is translucent almost to transparency. It is very cheap, much more so than oiled-silk, for which it is to some extent convertible, and to which it is for some purposes superior.

It is of course perfectly pliable, and slightly ductile and elastic.

It is unaffected by the heat of the body, but softens at a heat somewhat higher. It is insoluble in water but soluble in ether, chloroform, and alcohol, and it is of course impervious to any fluid which does not dissolve it.

The uses for which I would commend it are as a substitute for plasters of all kinds employed in wounds or lesions of the hands.

For example: a cut upon the finger may be treated by winding smoothly a narrow ribbon of this tissue around it. Two or more thicknesses may be made. A lighted match passed a little way above the surface will seal by fusion a band of this dressing and leave a neat, light, clean, impervious cover to the wound, which will permit the hands to be placed in water. Adhesion of cut surfaces and resolution of infiltrated deposits take place very quickly and kindly.

If a broad patch of the skin is to be shielded from the air, as for example a scalded surface or a patch of eczema, a piece of the tissue somewhat larger is laid upon it and sealed in position by tracing the margin with a camel's hair pencil dipped in chloroform, precisely as we adjust a covering glass to microscope slide. Lesions thus "mounted" remain under observation, covered, but not completely hidden.

The method is to be especially commended for the antiseptic dressing of incisions.

Some experience in these several uses leads me to commend them to the general notice of the profession.

W. M. Chamberlain, M.D.

68 West 40th Street, Sept. 17, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Sept. 16, to Sept. 22, 1877.

Happersett, J. C. G., Major and Surgeon. Relieved from duty at Wilkesbarre, Pa., and to return temporarily to his proper station, Fort Hamilton, N. Y. H. S. O. 216, Div. of the Atlantic, Sept. 18, 1877.

De Graw, C. S., Capt. and Asst. Surgeon. Relieved from duty at Carlisle Barracks, Pa., and to return to his proper station, Oglethorpe Barracks, Savannah, Ga., and there await further orders. S. O. 216, C. S., Div. of the Atlantic.

Kimball, J. P., Capt. and Asst. Surgeon. Assigned to duty at Wilkesbarre, Pa., relieving Surgeon Happersett. S. O. 216, C. S., Div. of the Atlantic.

Ewen, C., Capt. and Asst. Surgeon. Relieved from duty at Easton, Pa., and assigned to duty with U. S.

Troops at Scranton, Pa. S. O. 216, C. S., Div. of the Atlantic.

Dickson, J. M., Capt. and Asst. Surgeon. To proceed to Jackson Barracks, La., close his money and property accounts at that station, and then return with least delay practicable, to his post at Indianapolis, Ind. S. O. 216, C. S., Div. of the Atlantic.

Skinner, J. O., 1st Lieut. and Asst. Surgeon. Relieved from duty at Reading, Pa., and assigned to temporary duty at Carlisle Barracks, Pa. S. O. 216, C. S., Div. of the Atlantic.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending September 22, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Sept. 15.....	0	31	31	3	7	40	0
Sept. 22.....	0	27	38	2	6	45	0

Yellow Fever.—This disease has prevailed for some considerable length of time at Havana, has made its appearance at Fernandina, Fla., and finally has been brought to Quarantine at New York. The Havana authorities have refused to issue clear bills of health to vessels leaving that port while this fever was there, but the quarantine officials at Fernandina, it seems, have not hesitated in giving clear bills of health to vessels which have touched at that port, notwithstanding the disease at the time was prevailing in that place. Rigid quarantine, however, has been established against Fernandina, and doubtless an illegitimate spread of the disease will cease.

At Gainesville, Fla., are several boxes of goods received from New York, but, because they were delayed at the port of Fernandina some four or five days, their removal from the storehouses has not been permitted. In Havana, the fever is more prevalent and fatal than during the months of July and August; also at Fernandina, it is still spreading, and an increasing mortality is expected. The rigid and prompt quarantine at the port of New York has prevented the disease from finding its way into the city, except, perhaps, in one or two instances, and it is to be hoped that the number of cases in this latitude will be limited to the half-dozen now on board the hospital ship Illinois, in the lower bay.

Dr. John A. Wyeth.—This gentleman has resigned his connection with the Bellevue Hospital Medical College.

Parenchymatous Injection of Ergotine.—Dr. L. Collins, of Guilford, Ind., in *The Clinic*, speaks favorably of injecting a solution of ergotine into the tissue of the cervix in cases of subinvolution of the uterus and chronic engorgement of the neck of the organ. He uses a needle about four and a half inches long, attached to a hypodermic syringe; operates through a common glass speculum, first producing local anæsthesia by placing a pledget of cotton, saturated with chloroform, against the os, and throws into the cervical tissue a solution containing two or two and a half grains of Squibb's ergotine. The injections were repeated every six days. Very little local irritation is said to follow, and the pain, if any exists, soon assumes an intermittent character.

Plaster-of-Paris Jacket.—Dr. J. Bryan, in the Louisville *Medical News*, for September 15, 1877, defends his claim to priority in the use of the plaster-of-Paris jacket in the treatment of Pott's disease. He claims to have applied it first in the summer of 1874, in Bellevue Hospital.

Lecturer on Anatomy.—Dr. Joseph D. Bryant has been appointed to lecture on Descriptive and Surgical Anatomy in Bellevue Hospital Medical College, in place of the late Prof. A. B. Crosby.

Opium-Smoking, and a Government Edict.—The Chinese Government has taken the initiatory steps for suppressing the vice of opium-smoking, by passing a permissive edict, calling upon the governors of the various provinces to suppress indulgence in the habit. With what success the edict will be crowned remains to be seen, for three years are to elapse before it goes into force.

Medical Colleges.—The preliminary courses of lectures have commenced in the Bellevue Hospital and University Medical Colleges of this city. Both schools have opened with an unusually large attendance of students.

Small-pox has disappeared from Dublin, there having been but one death in that city during the past seven weeks.

Criminal Dissection.—The House Surgeon of the Glasgow Maternity Hospital was arrested for violating the Anatomy Act, in dissecting the dead body of an infant against the expressed wish of its mother.

Edinburgh.—The annual death-rate of Edinburgh, Scotland, is about fifteen per thousand.

War Ambulances and the Turkish Sick.—A correspondent of the *Times* writes: "On this third day of August there is an army of thirty-five thousand men without a litter, without one single ambulance wagon, without one case of surgical instruments, and neither here (Constantinople), nor at Kars, nor at Erzeroum, has a shilling of the money so nobly subscribed by the English public been received."

Provident Dispensaries.—Efforts are being made to consolidate the various provident dispensaries in London under the government of a central board. The object of this is that members of different dispensaries removing from one district to another, shall be able to avail themselves of all the advantages afforded by the provident dispensaries of their new district without fine or entrance fee. It is proposed that the Central Board shall be composed of members from each district.

Educated Midwives.—A correspondent deplores the want of educated midwives who might be in attendance upon patients during the uncertain dilating period, and thus save the medical attendant proper the sacrifice of much valuable time. We have some hopes that the Training School for Nurses may in time overcome the difficulty.

British Medical Association.—The meeting of the British Medical Association at Manchester, England, is spoken of by the English press in faint praise as a social and scientific success. Judging from the published reports the latter seems pre-eminently to have been the case. Several American gentlemen were present, among whom were Drs. Sims, Sayre, and Barker, of this city, and Prof. H. D. Didama, of Syracuse. All were cordially welcomed and hospitably treated.

Original Lectures.

LECTURES ON DISEASES OF THE HEART.

By AUSTIN FLINT, M.D.,

PROFFSSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Reported for THE MEDICAL RECORD.]

LECTURE V.

FATTY DEGENERATION OF THE HEART—ENDOCARDITIS—PERICARDITIS.

GENTLEMEN:—The next topic which I propose to consider is fatty degeneration of the heart. The pathological change in a heart which has undergone fatty degeneration exists in the muscular substance of the organ, and consists in the substitution of fatty granules or oil-drops for the muscular elements.

It is an important condition, and involves some difficulty in diagnosis. It is important with reference to measures of treatment, with the view of preventing further fatty change, and, if possible, to secure the patient against certain accidents which are liable to occur in connection with this condition, sudden death being one, and rupture of the heart being another. As regards symptoms and danger, the important point is this: in proportion as the fatty change takes place, the power of the heart's action is impaired. The heart is weakened in proportion as it undergoes fatty degeneration. This is the criterion; and that it is which underlies the physical evidence of this disease. We may have fatty degeneration of the heart in conjunction with valvular lesion, and this fact renders the diagnosis almost impossible, if there be enlargement of the heart present. It is only probable, and that simply because the evidence of weakness of the heart is out of proportion to the amount of enlargement. Yet, with valvular lesion present, we may reach a diagnosis with a certain degree of positiveness. The physical signs of this affection are such as represent persistent weakness of the heart's action. The absence of much or any enlargement of the heart enables us to exclude dilatation as the cause of the weakness. Now, what are the physical signs of this condition? First, there is a feeble impulse, but I do not attach any great amount of importance to this, especially if there is a considerable layer of adipose tissue over the chest. In a thin subject, however, we may derive some information from palpation.

The most important physical sign relates to the first sound of the heart, as heard over the apex. In proportion as the muscular tissue of the heart is weakened by fatty degeneration, as when weakened by dilatation, the first sound becomes weakened, and it may become extinct. We may hear only the second sound of the heart, on account of the extinction of the first sound over the apex; and when the first sound is heard, it will be found that it has changed in character. It will be short and clicking, valvular in character—the same changes as those which belong to dilatation. When, therefore, we find this physical condition persistent, and in connection with certain symptoms, we have the evidence of fatty degeneration of the heart. What are the symptoms which are to assist us in making the diagnosis? In the first place, the age of the patient is an important consideration. Fatty degeneration of the heart does not occur under forty years of age; it is hardly admissible under that period in life. The general condition of the patient as regards obesity, has some value as evidence, but is not of much weight. We more frequently find fatty degeneration of the heart in persons who show obesity, although it is found in those who are thin.

We direct attention to the eye, as a certain diagnostic value pertains to fatty degeneration of the cornea—the *arcus senilis*, as it is called. When attention was first called to this change, and the character of the change was ascertained, it was thought that we had a reliable criterion to fatty degeneration of the heart; that when the one existed the other was present, as a matter of course. Clinical facts, however, have shown that it does not follow that the presence of one establishes the existence of the other. The coexistence of the *arcus senilis* with other signs and symptoms possesses a certain amount of weight, and its absence also may have a certain value by way of exclusion.

Accompanying the feebleness of the central organ of circulation, we also have want of breath upon slight exertion, and tendency to syncope; perhaps falling into a condition of syncope frequently.

Then there are certain seizures, described first by Dr. Stokes as pseudo-apoplectic seizures, which are said to have a connection with fatty degeneration of the heart. They are a kind of semi-unconscious conditions, in which the patient may remain, perhaps, for hours. Dr. Stokes has pointed out a very interesting disturbance of the rhythm of respiration in these cases. This peculiar aberration in breathing was also described by Dr. Cheyne, and it has received the name of the Stokes Cheyne respiration.

The characters are these: The patient, when sleeping, breathes with a diminution in the intensity and an increase in the interval between inspirations until at length inspiration is very short, and a long time elapses before another follows; so long is this interval sometimes, that it seems as though the patient had breathed his last. Finally, the patient is roused suddenly, opens the eyes, breathes with a little more intensity and diminution in the length of the interval between respirations, improvement progressively takes place, and after the lapse of a few minutes respiration and consciousness are fully restored. This is not a very common form of aberration, but it is very striking, and the intervals between respiration are sometimes so long, and the appearance of the face is such, that the patient is as one dead.

Dr. Stokes regarded this kind of respiration as pathognomonic of fatty degeneration of the heart, but further clinical observation has shown that it has no pathognomonic character, and that it may occur without cardiac disease.

As regards treatment the patient's general health should be placed in the best possible condition. Give the patient good blood; prescribe digitalis as a cardiac tonic. It is sometimes customary to prescribe digitalis, as a matter of course, whenever cardiac disease is present, but a certain amount of discretion is to be used in the use of this drug. A powerfully acting heart does not claim the effect of digitalis. The drug under these circumstances does harm; it augments the action of the heart beyond what is useful. The indications for digitalis are weakness, rapidity, and irregularity of the heart's action. In the treatment of this affection it is to be borne in mind that there is a certain amount of liability to sudden death. Fatty heart in that regard holds the same place among lesions affecting the walls of the heart, that the aortic regurgitation holds among valvular lesions. Sudden death takes place from rupture of the heart, incident to fatty

degeneration. The most common condition which occasions rupture of the heart is weakness of the walls due to fatty degeneration. When sudden death does not take place as the result of rupture, the mechanism of death I suppose to be the same as when we have aortic regurgitation with dilatation of the left ventricle. The weakness of the ventricular walls, under circumstances in which the cavity becomes overfilled, prevents the organ from having sufficient power of contraction to relieve the cavity of the blood constantly accumulating, and the heart becomes paralyzed. The first object, then, in treatment is to give the patient, as far as possible, good blood. This is done by proper dietetic regulations, by the use of chalybeate tonics, if required, and the adoption of proper hygienic measures.

If at any time unusual weakness of the heart manifests itself, a certain amount of benefit, as already stated, may be derived from the judicious use of digitalis. Strychnine and nux vomica also exercise a tonic effect upon the heart. The patient should be cautioned against over-exertion, over-excitement, or anything which causes an unusual accumulation of blood in the heart. The restriction of the patient's exercise must be made with discretion, for, if he has been leading an active life, a general debility may be induced by a deficient amount of exercise. He should, as a rule, take such exercise as he can take without discomfort; it is allowable and desirable. These are the objects to be kept in view in the treatment of fatty degeneration of the heart. It has been supposed that in view of the fact that the lesion consists in the deposit of fat, the diet of the patient should contain only a very small proportion of fat; that fatty articles of food should be excluded. It is not clear that this has much influence on the lesion; still the quantity of fatty articles may, perhaps with propriety, be restricted within certain limits.

ENDOCARDITIS.

I will next make a very brief reference to endocarditis. The inflammatory affections of the heart are endocarditis and pericarditis. Carditis possesses but little practical importance; except as associated with pericarditis and endocarditis, it is so exceedingly rare that we may almost ignore it. The recognition of endocarditis as a distinct disease belongs to modern times. Its discoverer, Bouillaud, still lives.

At the present time we know that it is a pretty common affection, and we know this chiefly in its connection with rheumatic pericarditis. It occurs otherwise, as, for example, in connection with Bright's disease and the acute infections disorders. It probably occurs in connection with causes with which we are not at present fully acquainted. Its presence cannot be ascertained during life except by means of physical signs. It gives rise to no rational symptoms which are diagnostic. It never occurs as an acute affection. It is never ushered in with acute symptoms, as most other diseases are.

There is a form of endocarditis which leads to ulceration, and hence is called ulcerative endocarditis, and it is supposed, and with good reason, that, from the ulcerated surface, there gets into the blood sanious matter which produces septicæmia.

We do not, however, have endocarditis producing a febrile movement, such as would lead us to suspect the presence of an acute affection. It is the local sign alone which points to endocarditis. We base the diagnosis upon the result of physical exploration.

Now, very briefly, let me endeavor to impress upon your minds the method of making the diagnosis. I will do that in connection with the history of the case before us. This man entered the hospital while suffering from acute tubal nephritis. While in the hospital he had endocarditis. What was the evidence? It was this: this patient was examined when admitted, and repeatedly after entering the hospital, and no cardiac murmur was found. He was examined sufficiently often and with sufficient care to warrant this negative statement. But, after having been in the hospital for a certain length of time, a cardiac murmur was heard, and he has that murmur yet remaining. What was the murmur? He had a mitral murmur; that is to say, he had a murmur referable to the mitral orifice. It was a systolic murmur. It was a murmur which did not give evidence of mitral regurgitation. It was rather loud and rough, but was not transmitted laterally about the chest. Its maximum of intensity was at or near the apex of the heart. It was a mitral systolic non-regurgitant murmur developed while the patient was under observation, and suffering from acute Bright's disease. Now, we have the basis for a diagnosis, and it is the development of this murmur while the patient was under observation.

Suppose that the patient came into the hospital having a cardiac murmur, it would simply be evidence that at some previous date he had had endocarditis. To complete the proof of the development of endocarditis the murmur must be developed while the patient is under observation.

According to this man's history, the murmur which is diagnostic of endocarditis appeared on the sixth day after his admission to the hospital, and was noted in the history-book as follows: May 10th (no murmur having been heard previously), "There is heard a soft blowing murmur at the apex with the first sound of the heart, and not conveyed to the left. A similar murmur is heard at the base, and is transmitted into the carotid. Over the body of the heart is heard a harsh, loud systolic murmur." We had the first evidence of endocarditis on May 10th, six days after the patient was admitted to the hospital. You will notice that the murmur heard over the body of the heart is described as having a different character from that heard at the apex. That is not uncommon. The difference in character at the apex and over the body of the heart is explained by the fact that the conditions in different portions of the heart are such as to give rise to different sounds. The evidence of endocarditis, then, in these cases, is complete.

PERICARDITIS.

I will now speak of the physical signs and some of the symptomatic phenomena attending the development of pericarditis. This I will also do in connection with a case.

Pericarditis, as an idiopathic affection, is one of the rarest of diseases. It occurs most commonly in connection with acute articular rheumatism. It occurs not infrequently in connection with Bright's disease, and also with pleurisy and pneumonia. It rarely occurs in other connections, and in making a diagnosis these points in etiology may render valuable assistance.

This patient is just recovering from an attack of acute articular rheumatism. The present attack was not preceded by exposure of any kind whatever. Previous to his admission to the hospital he suffered from pain under the left nipple, and over a circumscribed area confined to the precordial region. The pain became severe and embarrassed respiration, and it is probable that this symptom indicated the commencement of the pericarditis. His joints were swollen and painful, but his ride to the hospital in the ambulance

cured him almost entirely. By way of parenthesis I may say that the case illustrates the benefit which may follow the use of methodic friction. For example, if you will lubricate the hand well, and then begin, with the slightest possible pressure, to rub a joint up and down, gradually increasing the pressure and continuing the rubbing for ten or fifteen minutes, you will find the patient will bear all the force you can put on, and after continuing it for some time the localized pain will be notably relieved. That fact may serve to explain this man's experience in the ambulance.

When this man was admitted to the hospital there was heard over the base of the heart a harsh, rubbing, double friction sound; the same sound was heard at the apex, although less distinctly. The same sound is still present, but it is not so loud as when the patient was first admitted. Prior to the effusion of liquid into the pericardial sac, this murmur is the characteristic physical sign of pericarditis, and fortunately for diagnosis, it is uniformly present. When this sign, therefore, is present in connection with symptoms denoting pericarditis, you may be quite positive in your diagnosis. There is one liability to error which it is well to bear in mind, and that is in some cases of pleurisy or pneumonia with pleuritic inflammation, the movements of the heart may cause a rubbing against the roughened pleural surface, and in that manner give rise to a cardiac pleural friction murmur, which may be double or single.

It is further noted in the history of this case that a soft, blowing murmur is heard with the first sound at the apex, but is not conveyed in any direction. We have then, in addition to the friction murmur, indicating the presence of pericarditis, a murmur which is evidence of endocarditis. This fact leads me to say that when we have rheumatic pericarditis we always have rheumatic endocarditis. The patient was placed under treatment by the use of salicylate of soda.

April 7th, four days after admission, friction sound diminished in intensity. April 11th, fluid in the pericardium increased in quantity. What are the signs which indicate the presence of fluid in the pericardial sac? The to-and-fro murmur limited to the precordia often, but not always, disappears. The diagnosis, then, in this stage is based on signs which indicate the presence of fluid. If the effusion is moderate, the effect is to raise the apex of the heart, and the apex-beat may be felt in the fourth intercostal space and removed to the left of its normal situation.

The power with which the apex is brought against the chest-wall is diminished, and the impulse is always feeble; it may be lost entirely, and usually is, when the amount of liquid effusion is considerable or large. Sometimes a feeble impulse can be obtained by bending the body well forward, when otherwise it would pass unrecognized. If we listen to the heart, after liquid effusion has taken place into the pericardium, we find that the sounds are feeble and distant; the first sound is particularly enfeebled. It loses all its normal character and becomes, like the second sound, short and valvular in character.

Weakness of the first sound, distant and valvular in character, are the characteristics of the first sound of the heart when fluid effusion has taken place in the pericardium.

Another sign indicating the presence of fluid is flatness upon percussion over an area corresponding to the size, situation, and form of the pericardial sac. When the pericardial sac is filled with liquid without being dilated, it forms a pyriform tumor within the chest, the apex of which raises nearly to the sternal notch; the base is at the sixth or seventh intercostal space; the right lateral border is somewhat beyond the right margin of the precordia, and the left lateral border is considerably beyond the nipple. Within this area there is notable dulness or flatness upon percussion, together with absence of respiratory murmur and vocal resonance. It is by means of these signs that we are able to mark out the boundaries of this pyriform tumor upon the chest. When the quantity of liquid effusion is only moderate, the sac being only partially filled, the same physical signs are present, but we do not get the peculiar shaped tumor. In some cases in which the quantity of fluid in the pericardial sac is very great, flatness upon percussion is present over the greater part of the anterior aspect of the chest. The increase or diminution of liquid in the second stage of pericarditis may be determined by percussion and auscultation. When the quantity is much diminished, the friction murmur, if it has disappeared, returns and remains constant until the pericardial surfaces become agglutinated. Not infrequently, when the pericardial sac contains a large quantity of fluid, the friction murmur can be heard if the precordia is auscultated while the body of the patient is bent forward. In some cases the pericardial friction sound can be heard throughout the entire course of pericarditis without change in the position of the body of the patient, although there may be a considerable quantity of fluid in the pericardial sac. If, therefore, we find a pericardial friction sound in connection with other symptoms, we have the evidence upon which to base a diagnosis of pericarditis; and if the friction sound disappears, the first sound of the heart becomes distant and valvular in character, and there is notable dulness or flatness upon percussion over the precordia, we have the evidence upon which to base a diagnosis of pericarditis with effusion of liquid into the pericardial sac.

These, then, are the important physical signs by which you will recognize the presence of endocarditis and pericarditis, and if they are thoroughly studied and carefully applied you will have no great difficulty in arriving at a correct diagnosis.

Original Communications.

A CONTRIBUTION TO THE THEORY OF DYSMENORRHŒA.

By WILLIAM B. NEFTEL, M.D.,

NEW YORK.

In 1871 I published the first case of dysmenorrhœa successfully treated by galvanism,* and reported other cases in Brown-Séquard's Archives.† Since that time a very large number of similar cases have confirmed the beneficial effect of the galvanic treatment in dysmenorrhœa. A constant current of considerable intensity is directed chiefly towards the genito-spinal centre, discovered by Budge in the spinal cord (situated somewhat above the lumbar enlargement), and a current of moderate intensity towards the medulla oblongata. No local treatment of the womb is resorted to.

In the majority of my cases the dysmenorrhœa was accompanied by various morbid conditions of the womb, viz.: chronic inflammation, anteflexion, retroflexion, stricture of the cervix, etc. In some cases,

* Neftel. Galvano-therapeutics. New York. 1871. p. 109.
† Neftel. Clinical Notes on Nervous Diseases of Women. p. 365.

however, no displacement or any structural disease of the uterus could be detected. These latter cases presented the greatest interest as regards the theory of dysmenorrhœa. The fact that dysmenorrhœa of the intensest kind and of long standing may exist occasionally without any organic or mechanical derangement of the uterus and its adnexa, proves conclusively that dysmenorrhœa belongs to the class of the so-called functional diseases, being analogous to other visceral neuralgias. Therefore the mechanism that produces the phenomena of dysmenorrhœa must be essentially the same, however different may be the uterine disorder complicating it, and depends upon some nervous, probably spasmodic affection of the uterus. This mechanism I have endeavored to explain in the following manner: an irritation originating in the uterus is propagated through its sensitive nerves (the sacral nerves) to the nervous centre, whence it is transmitted to motor nerves (plexus uterinus), which produce the spasmodic contraction of the uterus. Usually the irritation takes place on the mucous membrane of the uterus, and is caused by the pressure of the accumulated menstrual blood, the free escape of which is impeded.

It is evident that a strictured condition of the cervix, whether resulting from flexions, versions, or chronic inflammations of the womb, is favorable for calling forth that irritation with the subsequent reflex-contraction. But generally these structural derangements, unless they have reached an unusually high degree, do not by themselves produce the phenomena of dysmenorrhœa, because the tissues are sufficiently elastic to admit the uninterrupted flow of uncoagulated blood. In order to produce dysmenorrhœa, it is requisite that there should exist an increased irritability either of the nervous centre, or of the sensitive nerves, or of both. Whenever, therefore, such an increased reflex-irritability exists, a spasmodic stricture of the cervical canal is likely to take place, and impede the free passage of the menstrual flow, even without the presence of any structural uterine affection, though this latter complication must undoubtedly aggravate the dysmenorrhœa. This assumption is corroborated by the well-known fact that frequently persons affected with chronic inflammations, flexions, versions, etc., do not at all suffer from dysmenorrhœa.

Whether this theory is correct or not, I leave to further investigations to decide; but meanwhile the galvanic treatment of dysmenorrhœa based by me on this theory has proved entirely successful, even where all other methods, including the most efficient surgical ones (incision of the neck, sponge-tents, etc.) had utterly failed to relieve the disease. It is impossible in a brief article to discuss all the important facts bearing upon this subject, and I therefore restrict myself at present to pointing out the neurotic nature of dysmenorrhœa, and recommend its treatment by galvanism.

As illustrations I select the two following cases, both being of long standing, examined by a gynecologist, in whose diagnosis no error could be admitted as regards the morbid condition of the genital organs, where no other remedies but galvanism were employed, and which resulted in a complete and lasting recovery:

Mrs. W., 28 years old, of medium size, very anæmic and emaciated, married seven years, but sterile. Soon after her marriage she took a cold bath, not knowing that the menstruation had already appeared; it ceased earlier than usually, and was altogether less copious. The next period was exceedingly painful, and since that time the patient has suffered from intense dysmenorrhœa. At first she remained in bed only during the monthly periods, which were gradually becoming more profuse and more painful. Soon, however, she commenced to suffer also during the intervals from frequent headaches and a constant backache, until she became a confirmed invalid, passing the greatest part of the time in bed. For seven years she was under the constant care of most eminent gynecologists, and subjected to a variety of internal medications and local treatments—among the latter may be mentioned sponge-tents and incisions of the neck of the womb. Notwithstanding these efficient methods of treatment, her condition continued to grow worse in every respect; it became necessary to keep her under the influence of anodynes during menstruation, while during the intervals nothing could relieve the excruciating pains in the head and back. Her last physicians assumed the existence of a spinal disease complicated with an organic affection of the heart, as she had a great deal of palpitation, with a loud systolic murmur, and an irregular pulse. In the winter of 1873 she placed herself under the care of Dr. J. Marion Sims, who had the opportunity of observing her during three months. Having exhausted all the usual means without avail. Dr. Sims, to whose great kindness I am indebted for a number of most interesting cases, referred the patient to me for galvanic treatment of dysmenorrhœa, the backache and irregular action of the heart having been considered incurable by all the physicians who had treated her.

February 20, 1874, I examined the patient for the first time in the presence of Dr. Sims. She was very weak, emaciated, and could not leave her bed. The skin, and especially the visible mucous membranes, were exceedingly pale. She complained of headache and of pains in the sphere of different nerves (occipito brachial and intercostal neuralgia, sciatica), but more especially of excruciating backache that had never left her during the last seven years, depriving her of nights' rest, and preventing her from walking; the digestion was impaired, and she had no appetite. With the approach of the monthly period all the morbid symptoms were exacerbated and culminated in the intensest dysmenorrhœa, necessitating the use of anodynes, which, however, did not entirely relieve, but merely mitigated the excessive pain. After the period a high degree of prostration remained, from which she scarcely had time to recuperate before the appearance of the next period with all its morbid symptoms. Her pulse was small, accelerated, the heart's action irregular, with a loud systolic murmur; the spine exceedingly tender to the touch, especially the cervical and lumbar portions, the latter not bearing the slightest touch. Dr. Sims informed me that there was "flexure anteriorly at os internum, cervix indurated (a grizzly condition), small, projecting into vagina at proper angle; os small, canal narrow." He had incised the cervix bilaterally to os internum, "incision anteriorly at os internum at point of flexure," but the operation did not relieve the dysmenorrhœa or improve the general health of the patient.

My diagnosis was general anæmia in a chlorotic person, with neuralgic affections in the sphere of different nerves, caused by the anæmia of the brain and spinal cord. The dysmenorrhœa I considered as a neurosis, and the anteflexion as a mere complication of the visceral neuralgia. The first and apparently the most important indication was to improve the anæmic condition by the use of preparations of iron and a tonic régime, and at the same time to treat the neuralgic affections with the galvanic current. The patient at once warned us that she had a peculiar idiosyncrasy against iron, and that every physician who had tried

it had soon to discontinue its use on account of the most unpleasant symptoms it invariably called forth. However, the indication being so rational, I prescribed small doses (two grains, and afterwards one grain) of iron hydrogen, but very soon had to stop its use; the headaches became unbearable, the face flushed, the mouth dry, with loss of appetite and other symptoms resembling those of fever, although the temperature was scarcely increased. I refrained also from giving her quinine or other tonics, as they likewise had been vainly tried many times, and, therefore, resorted to the galvanic treatment, excluding every other medication. The difficulty of applying the current, on account of the excessive tenderness of the spine, could only be overcome by beginning with the weakest possible currents, increasing the intensity with the greatest care, and avoiding sudden and large fluctuations of the current density by means of a rheostat, intercalated as an accessory current. This treatment was continued daily, and under its influence the general health of the patient rapidly improved, the appetite, digestion, and sleep became normal, the neuralgic pains disappeared to a great extent, and she could walk in the open air, even during the most inclement weather, though the backache continued as before. March 31st, the menstruation appeared with considerably less pain, and this lasted only six hours, so that the patient, without any anodynes or other remedies, did not have to remain in bed or even indoors, but continued during the whole period her daily walks and galvanic treatments. Under the influence of these daily treatments the next period was entirely painless, and the backache gradually disappeared altogether. In order to prevent relapses, but more especially because the patient was afraid to return to her home (Virginia) too soon, she remained under treatment for a third month. The change in her condition was most remarkable: the external appearance was healthy, she felt strong, could walk long distances; the sleep, appetite, and digestion became normal, and bowels regular. Her general health still remains excellent, and she is perfectly free from dysmenorrhœa and backache. Her husband, in his last letter, dated October 21, 1876, writes, "I am sure you will be glad to hear that she has steadily improved since she left you three years ago next spring. You remember the awful headaches with which she used to suffer, and the agonizing pain in her back. Now she never has either, etc." Last November Mrs W. was in New York, and presented herself to Dr. Sims, who convinced himself of her complete and permanent recovery from dysmenorrhœa and backache.

Though I consider electricity as invaluable in the treatment of nervous diseases, I mostly employ it in combination with other dietetic and pharmaceutic remedies. In this particular case, however, the efficacy of galvanism alone had to be tested, at the exclusion of all other medications. The facts that every known method had been unsuccessfuly tried before, and that the patient still remains in perfect health and menstruates normally, admit but of one conclusion—that a radical cure of dysmenorrhœa has been effected by means of the galvanic treatment. So far this case could have served as an experimentum crucis as regards the value of this method. It is, therefore, much to be regretted that no examination of the sexual organs could be made after the termination of the treatment, the patient declining such an examination.

The following case, which I report here in a condensed form, presents a special interest only as regards the theory of dysmenorrhœa, inasmuch as it reveals the neurotic nature of the affection.

Miss E., æt. twenty-nine, has inherited a neuropathic constitution, her father having died from softening of the brain. She always suffered from dysmenorrhœa, and though well nourished and looking tolerably healthy, was frequently subject to headaches, flushed very readily, and often had fainting fits, especially during the menstrual pains. The dysmenorrhœa was always accompanied with a sensation of cold in the extremities, with congestion to the head and other vaso-motor phenomena. Dr. Sims found antiflexion of the uterus, and proposed an operation (incision of the cervix), as nothing else could relieve her dysmenorrhœa. She was afraid of an operation, and, therefore, Dr. Sims kindly referred her to me for galvanic treatment, October 23, 1874. As all the usual remedies had been tried without benefit for so many years, I concluded to observe the effect of the galvanic treatment, unsupported by any other medication, in order to obtain and demonstrate the uncomplicated result of the galvanic treatment of dysmenorrhœa. In the progress of this case there was nothing of particular interest which would require any special notice. Under the influence of daily galvanic treatments the menstruation appeared November 5th, with considerable pain, which, however, lasted only a few hours. The next menstruations (Dec. 5th and 31st) were entirely painless. Moreover, she was relieved from the headaches, fainting fits, coldness of extremities, and other morbid symptoms within the vaso-motor sphere, and left New York January 12, 1875, in a perfectly healthy condition, which still continues. Last fall, on her way from the Centennial exhibition, she visited New York, and called on Dr. Sims, whom she informed that she is permanently cured of the dysmenorrhœa and other morbid symptoms by the galvanic treatment. Dr. Sims, referring to this case in a note to me, writes: "On examination I found the uterus of the same shape and size, and with the same relations as when I saw her before (the galvanic treatment). But there was no congestion of the cervical mucous membrane as before."

This examination proves, beyond any possibility of doubt, that the dysmenorrhœa, which lasted in our patient from the first appearance of catamenia, over fifteen years, and could be ascribed to the existing structural disorder of the uterus, has been permanently cured by means of the galvanic current, notwithstanding the persistency of the organic affection. The circumstance that a congestion of the cervix was not noticed several years after the galvanic treatment can evidently be left out of consideration. Such congestion of the cervix must be ascribed to the result of dysmenorrhœa rather than to its causes.

In the opinion of unprejudiced observers one single *positive* fact is more valuable than a large number of negative ones, and I can consider, therefore, the above related case as an additional proof that dysmenorrhœa is essentially a nervous affection (visceral neuralgia), though it is frequently complicated by structural or mechanical derangements of the uterus.

From a large number of cases of dysmenorrhœa I selected these two, being the only cases referred to me, and examined by Dr. Sims.*

I reserve for a future occasion to give further details with reference to other points of interest, and will merely mention that with the dysmenorrhœa disappear also the congestions of the pelvic organs, especially the chronic inflammations of the uterus, and the general health improves.

* A third case lately sent to me by Dr. Sims is excluded from consideration, because sufficient time has not yet elapsed since the galvanic treatment.

The advantages of the galvanic method of treatment of dysmenorrhœa are so obvious that it is scarcely necessary to mention them. Besides affecting favorably the general health, there is one point which above all will be appreciated by the physician and patient. This method does not require any local treatment of the womb, a circumstance of high importance in the treatment of young women, and especially where there exists a morbid irritability of the sexual organs.

NOTES UPON THE SURGICAL ANATOMY OF THE OBTURATOR ARTERY.

THE DIFFERENCE OF ITS RELATIONS IN THE MALE AND FEMALE, WITH A CONSIDERATION OF ITS IMPORTANCE IN THE OPERATION FOR RELIEF OF FEMORAL HERNIA.

(Deduced from twenty-seven consecutive dissections of the arteries in the male, and twenty-six in the female pelvis.)

By JNO. A. WYETH, M.D., and WILLIAM L. WARDWELL, Esq.,

of New York.

In its distribution the *obturator artery* is simple and constant; in its origin and relations there is no artery in the human body which presents so many vagaries. In support of this last statement it will suffice to quote from some of the standard text-books the different opinions of different anatomists upon this artery.

Quain gives its origin as "usually from the *posterior* trunk of the *internal iliac*, not unfrequently from the epigastric."

Sappey takes a different view, and says "from the *hypogastric* (*anterior trunk of internal iliac*), sometimes from the *external iliac*, rarely from the *femoral*."

Leidy is of the opinion that it "is a branch of the *posterior trunk*, and often a branch of the *anterior trunk* of the *internal iliac*."

Wilson gives it "from the *anterior* trunk; frequently from the *posterior* trunk of the *internal iliac*."

Gray agrees with Wilson *verbatim*, adding that "in 2 of 3 cases the obturator arises from the *internal iliac*, in 1 of 3½ from the epigastric, in 1 of 72 by two roots from both vessels."

Luschka, "from *anterior trunk* of *internal iliac*; occasionally from external iliac, *epigastric*, or *femoral*."

Velpeau writes: "An examination of several thousand cadavers does not permit me to say that the *obturator* artery comes from the *epigastric* in 1 of 3, nor 5, nor 10, but only 1 in 20."

Tiedemann says, on the other hand, that "you may expect to find the *obturator* from the epigastric in 1 of 3 cases, this variety being more *common in the female than in the male*."*

In the two following tables I have given the analysis of 53 dissections, made in order to contribute something of certainty to the anatomy of this artery. Thirteen subjects of each sex were chosen, and both sides noted as they were dissected.

It will be seen that in *females*, of 26 cases, the *obturator* was from the *deep epigastric* in 13½ instances; from the posterior trunk of the *internal iliac* in 1½; from the *anterior trunk* in 11 instances.

In *males*, of 27 cases, it was from the *epigastric* in only 5; from the *posterior trunk* in 1; while from the *anterior trunk* of the *internal* iliac it was derived in 22 instances.

In these cases it is seen that in *females* we may expect to find the *obturator* to be derived from the *deep epigastric* in 1 of 2 cases; in males in 1 of 4½ cases.

And, in a total of 61 cases, regardless of sex, the proportion is 20, or 1 in 3.

Females.

No.	Side of body.	Originated from anterior trunk of *internal iliac.*	From posterior trunk of *internal iliac.*	From the *deep epigastric.*	Remarks.
1	R	..	..	1	*
2	L	..	..	1	
3	R	..	..	1	
4	L	..	..	1	
5	R	..	..	1	
6	L	..	..	1	
7	R	..	..	1	In Nos. 7 and 8 the *obturator* arched over the crural ring in such a manner, that, had *femoral hernia* existed, the intestine might have been closely encircled by the artery.
8	L	..	..	1	
9	R	..	..	1	
10	L	..	..	1	
11	R	1	..	..	
12	L	..	..	1	
13	R	1	..	..	
14	L	..	..	1	
15	R	1	..	..	
16	L	1	..	..	
17	R	1	..	..	
18	L	1	..	..	
19	R	1	..	..	
20	L	1	..	..	
21	R	1	..	..	
22	L	1	..	..	
23	R	.	..	1	
24	L	1	..	..	
25	R	..	1	..	
26	L	..	1	1	One origin (quite small) from *posterior* trunk; one, larger, from *deep epigastric*; both united in obturator canal, to form a single trunk.
		11	1½	13½	

Males.

No.	Side of body.	Originated from anterior trunk of *internal iliac.*	From posterior trunk of *internal iliac.*	From the *deep epigastric.*	Remarks.
27	R	1	..	..	
28	L	1	..	..	
29	R	1	..	..	
30	L	1	..	..	
31	R	1	..	..	
32	L	1	..	..	
33	R	1	..	..	
34	L	1	..	..	
35	R	1	..	..	
36	L	1	..	..	
37	R	1	..	..	
38	L	1	..	..	
39	R	1	..	..	
40	L	1	..	..	
41	R	1	..	..	
42	L	1	..	..	
43	R	1	..	..	
44	L	1	..	..	
45	R	.	1	..	
46	L	1	..	..	
47	R	..	..	1	
48	L	..	..	1	
49	R	..	..	1	
50	L	1	..	..	
51	R	..	..	1	
52	L	1	..	..	
53	L	1	..	..	
		22	1	4	

Tiedemann is the only one of these anatomists who notices the difference between the origin of this vessel in *males* and *females*.

* The writer is indebted to Dr. I. Minis Hays for valuable reference in regard to this artery; to "Lawrence on Ruptures," one of the most valuable books on this subject published.

* The ⌒ to the left indicates the dissections to have been made upon both sides of the same subject; that to the right, that the origin was the same on both sides of the same subject.

Note.—In 8 other dissections in which the *sex* was not noted, this artery came from the *anterior trunk* in 5, from the *posterior* in 1, from the *deep epigastric* in 2 instances.

In 160 cases in which Cloquet noted the *obturator* as coming from the *internal iliac*, 87 were in males, 73 in females, showing, as in my cases, the greater tendency of this vessel to come from the *internal iliac* in men.

In 56 cases this same author noted from the *epigastric*, 21 were in males, 35 in females, agreeing also with the dissections embodied in this article, that the tendency of the *obturator* to come from the *deep epigastric* was much greater in *women* than in *men*.

So great is this difference, that the estimates made from both sexes should not be considered, in view of the probable contact with this vessel in femoral hernia.

An examination of the foregoing tables will show that in 19 of 26 subjects this artery was derived from the *same point on the two sides*, showing in this respect a symmetry of arrangement I have not noticed in any other artery of the body.

Femoral hernia being comparatively a rare accident in the male, and the *obturator* artery having a dangerous relation to the *femoral ring* in the male sex in only a small proportion of cases, the surgical interest of this vessel belongs to the opposite sex.

When derived from the *epigastric*, it usually comes off from this artery from ¼ to ¾ of an inch from the origin of the *epigastric* from the *external iliac*. It then turns abruptly down on the outer side of the *femoral ring*, being in intimate relation with the sheath of the *external iliac vein*, and thus makes its way to the *obturator foramen* in such a manner that it would be exceedingly difficult for the intestine, descending to form a *femoral hernia*, to insinuate itself between the *iliac vein* and the *obturator* artery, so as to loop this latter vessel around the hernia. This danger will be greater as the obturator is distant at its origin from the *external iliac*. However rare this double accident may be (femoral hernia, with the *obturator* artery looped around it), yet, as it can and has occurred in several instances, the surgeon should proceed in every instance as if he supposed this accidental arrangement existed.

When the stricture is so situated that Gimbernat's ligament requires division, the point of the probe-pointed bistoury should be kept hard pressed against the surface of the *os pubis* to which this ligament is attached, and, as is advised by one of the most eminent American surgeons, "the ligament should be divided without any sawing motion."* It is evident that, if the cutting edge of the knife is not pushed beyond the ligament into the pelvis, the artery will not be divided.

I have noticed that the *obturator vein* is in relation to the femoral ring in a much larger proportion of cases than the artery, it being often double, one going to the *internal iliac*, the other to the *external iliac* vein, when the artery was from the *anterior trunk* of the *internal iliac* alone.

Deductions: 1st. That anatomists giving the origin of the *obturator artery* from the *posterior trunk* of the *internal iliac* are *positively wrong*, the vessel not originating from this point in more than 10 per cent.

2d. That in females it will be derived from the *deep epigastric* in *one* of *two*, or *two and one-half* cases.

3d. That in males it will be from the *deep epigastric* in *one* of *four* or *six* cases.

4th. That the *obturator vein* is found to empty into the *external iliac* or *epigastric vein* in a much greater proportion of cases than the artery is found to originate from the *epigastric* or *external iliac*.

5th. That the advice, to "feel for the pulsation of this artery before cutting Gimbernat's ligament."* (as is frequently given), seems unnecessary, since the insertion of the finger through the constricted canal, completely filled by the intestine, *that has for this reason become strangulated*, is impossible until *after the section is made*.

6th. That, although the conditions in which the *obturator artery* is found to the inner side of a femoral hernia rarely exist, the operation should be made with every regard to this abnormal arrangement.

NOTE.—In one instance I have seen the *obturator* a branch of the *epigastric*, and this latter a branch of the *profunda femoris*. This specimen is the property of the Wood Museum of Bellevue Hospital, and is not included in these notes, on account of its being so unusual.

44 WEST 27TH ST., Sept., 1877.

* Hamilton's System of Surgery, p. 743.

Progress of Medical Science.

SYPHILITIC DISEASE OF THE INTERNAL EAR.—In a paper published in *Virchow's Archives*, Prof. Moos briefly recapitulates the little that is thus far known about the pathologico-anatomical changes in cases of deafness due to syphilis, and then gives the details of a case that came under his own observation. The case was one of secondary syphilis, in which dizziness, annoying tinnitus aurium, and osteocopic pains in the skull were complained of. The hearing was rapidly destroyed. Death. At the autopsy the right external and middle ear were found intact. Sclerosis of the petrous portion of the temporal bone; periostitis in the vestibule, and small-celled infiltration of the membranous labyrinth. Anchylosis of the stapes to the fenestra ovalis. Trunk of the acusticus unchanged. It is evident from this and other cases, that early and rapid loss of hearing is a valuable symptom for the diagnosis of a syphilitic disease of the ear.—*Centralblatt für Chirurgie*, August 19th.

ATROPHY OF THE TESTICLES FOLLOWING MUMPS.—At the meeting of the *Société Médicale des Hôpitaux*, on August 10th, M. Lereboulet presented a soldier, twenty-two years of age, who had had an attack of parotiditis four months before. His genital organs were then well developed. Four days after the mumps set in, he was seized with a pretty severe double orchitis, which lasted three days. The swelling of the parotids persisted for a few days longer and then disappeared. About three weeks later, the testicles were found to be undergoing atrophy, and at the present time they are only about as large as almonds. Simultaneously with the atrophy of the testicles, the mammary glands became enlarged, and the development of hair on the chin was arrested. The chin of the patient is now as smooth as that of an infant, but the hair on the pubis is as strong as before. M. Render stated that he had met with a case of atrophy of the left testicle, with hypertrophy of the mamma on the same side.—*La France Médicale*, August 22d.

TRANSFORMATION OF SERO-FIBRINOUS PLEURISY INTO EMPYEMA.—M. Dieulafoy has examined microscopically the fluid withdrawn from twenty-two cases of pleurisy, and has found that even in the mildest cases this fluid invariably contains from 1,500 to 2,000 red blood-globules to the cubic millimetre, although it may not present the slightest coloration. When the fluid contains from 6,000 to 7,000 blood-globules

* Holmes' Surgery, Vol. IV., p. 779.

to the cubic millimetre, it has a slightly reddish tinge. Relying on these facts, M. Dieulafoy thinks it probable that empyema is, originally and histologically, a hemorrhagic pleurisy. When the pleuritic fluid contains from 2,500 to 3,000 red globules, the case should be regarded as one of simple pleurisy; but when the red globules are more numerous, it is very probable that the affection will develop into an empyema. He thinks that in these cases, as in pneumonia, the period of suppuration is preceded by one of congestion and extravasation; the red globules diminish in number or disappear, and at the same time the white globules increase in number, until finally the fluid is purulent rather than hemorrhagic. M. Dieulafoy does not claim that the presence of red globules in large numbers in the pleural fluid necessarily causes it to become purulent; there are true hemorrhagic pleurisies which never become empyemas. The duration of the period of congestion and extravasation is unknown; in some cases it seems to be from five to eight days, or even longer. In conclusion, M. Dieulafoy sums up with the statement that, aside from the true hemorrhagic pleurisies which are symptomatic of cancer or tubercle, there are others which are originally hemorrhagic from a histological standpoint, but have a special tendency to become purulent altogether independently of the operation of thoracentesis.—*La France Médicale*, August 15th.

A Case of Imperforate Anus with Fistulous Opening into the Bladder.—On April 11, 1876, a male child, two days old, was brought to Mr. Rowan, at the Melbourne Lying-in Hospital. On examination an imperforate condition of the anus was found; there was no depression or mark to indicate its usual position. The abdomen was distended, tympanitic, and very tender. On the next day chloroform was administered, and an incision was made in the centre of the fundament, and after cautiously dissecting to a depth of two and a half inches, the rectum was reached. An opening was made into it, and a large quantity of meconium and flatus escaped. The wound was kept open for a week with oiled lint, and a large bougie was subsequently passed every second or third day. Mr. Rowan shortly afterwards lost sight of the child, but it was brought back to him on the first of last February, in a worse condition than in the preceding April. The bougie had not been passed for three months, and for two months the child had passed nothing by the natural passage, all the motions escaping through the penis until the previous day, when the foreskin became so narrow that the child could not pass even water without great difficulty. Examination showed that the anus was closed about an inch from the orifice, and revealed in addition complete phymosis. Circumcision was performed, and a few days later the former passage into the rectum was reopened and enlarged sufficiently to allow the finger to be passed in. The rectum was found filled with hard fæces, which did not come away until the next day. After the operation the finger was passed every day, and at the present time the canal seems perfect. Mr. Rowan thinks that a second operation would not have been required in this case, if he had made the opening large enough at first to allow the finger to be inserted easily. The fact that defecation occurred through the bladder and penis for two months without causing cystitis or urethritis, is curious.—*Australian Medical Journal*, March, 1877.

Beware.—A city physician writes that his office has been invaded by a sneak-thief and sundry professional articles removed.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice, and Peculiarities of Treatment.

Left Hemiplegia—Aphasia—Question with Reference to the Cause—Reasons for believing it to be of Syphilitic Origin.

A male patient, æt. 32 years, had enjoyed very good health up to seven months ago, when he noticed that paralysis was slowly affecting the left side. He had suffered from headache continuously during the four weeks immediately preceding the appearance of the paralysis. The fact that the man was only thirty-two years old was regarded as evidence in favor of the syphilitic origin of his hemiplegia. It was said that, when hemiplegia occurred in persons under thirty-five years of age, in seven out of ten cases it would be found to be due to chronic endarteritis dependent upon syphilis, or due to embolism. If due to embolism it is not *preceded* by *headache*. Hemiplegia, when of syphilitic origin, it was said, is almost invariably preceded and is usually followed by headache; whereas, when the hemiplegia depends upon embolism, it comes without warning. In cases of syphilitic endarteritis terminating in hemiplegia it was said there were three different classes of symptoms.

First.—There is absolutely no tension whatever to the pulse.

Second, with reference to pain. Severe pain in the head is a pretty sure indication that you have to deal with trouble in the periosteum or in the meninges of the brain; that is, it is at the outer surface of the brain where the disease is mainly located.

Syphilitic endarteritis, on the other hand, although accompanied by headache, does not give rise to the agonizing pain which is present in any of the forms of inflammation affecting the periosteum or the coverings of the brain. Instead of that, the headache is of a dull and persistent character, is much more likely to be accompanied by loss of memory, cramps in the legs, inability to sleep through the night, and a sense of mental inactivity. These are the symptoms of syphilitic endarteritis preceding hemiplegia.

Third.—Symptoms accompanying the presence of tumors—gummata. These symptoms will vary exceedingly according to the situation of the tumor. They are not apt to be accompanied by special headache. On the other hand, there is more likely to be slight paralysis somewhere about the face; affecting the muscles of the eye or those about the mouth; or perhaps some action of the fingers is affected, etc. But one symptom, it was said, is always present—namely—a pulse without tension. If, therefore, a patient appears having slight paralysis of some of the muscles of the face, etc., examine the pulse, and if it be found to be without tension, the suspicion should at once be aroused that there is syphilis behind all the symptoms.

Another interesting feature in the case was the fact that there was aphasia associated with the left hemiplegia, the aphasia continuing three weeks after the paralysis appeared. The *treatment* was iodide of potassium; and to do much good in cases of syphilitic hemiplegia it was believed to be necessary to administer if in large doses, grs. lx., t. i. d., and increased until, perhaps, grs. 240 are given three times a day.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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MEDICAL REGISTRATION.

With every issue of the *Medical Register* there are more or less complaints concerning the omission of names. This is to be expected, as no earthly tribunal is believed to be immaculate. The fact is so well acknowledged that there is always a reasonableness in according to every suspected criminal the right to a fair trial and a proper appeal.

In making the above preliminary remarks it is not our intention to question the decision in any individual case, but to refer, in a general way, to some of the principles involved in the present system, and their liability to abuse. We approach the subject with the full conviction that all attempts at perfect medical registration are beset with difficulties, the majority of which are not even imagined by those who have given no attention to them. Indeed, very many practical men deem these obstacles so great that they have been and are still discouraging every effort in that direction. We do not believe that these impediments are absolutely insurmountable, but at the same time we are convinced that medical registration, for all practical purposes, can approach a high degree of perfection. How the latter point can be attained is the question which involves all others connected with it. Perhaps there is no shorter way of arriving at any conclusions upon the subject than in learning some of the lessons which have been offered by the experiences of the Medico-Historical Society of this city. Until the gentlemen composing this organization took the matter in hand, no attempt had ever been made to create a reliable register of medical practitioners in this city. As this register was the first, and is by all odds the best of its kind anywhere in the United States, it can with justice be considered the type with which all others may be compared. That this annual is generally considered authoritative is a great compliment to the arduous labors of those who have aimed to make it so. There is hardly a doubt in the minds of the profession that the editor and committee do their utmost to insure accuracy; but that they may be mistaken in their decisions and do injustice to some individuals, is not only possible, but highly probable. The suspicion of the latter is not lessened by the fact that the decision in any given case is considered final, and is made by a tribunal which, however excellent, is self-constituted, and is practically perpetual. With unprincipled persons the temptation to do injustice to individuals would be almost irresistible, and even with the best of men a long acquaintance with heavy responsibilities may, in the end, beget a sufficient indifference to their claims to amount to positive and culpable neglect of duty.

Then, again, there is danger that what are really the interests of the profession at large will degenerate into those of a mere ring. Obnoxious as is this idea to those who, like ourselves, have confidence in the integrity of the editor of the *Register* and of the gentlemen composing his committee, it is being constantly brought up by such as believe themselves to be unjustly treated. Appreciating how hard it is to convince any individual that a judgment against him is just, we nevertheless add weight to any argument in his defence based on the acknowledged appearance of evil on the part of his judges.

These are, if not all, at least some of the more important defects of our present system of medical registration. We are speaking of them as matters of principle independent of individuals. The fact that trustworthy individuals may possess a power liable to be abused by others is almost as strong an argument for a change as if the latter were already in authority. The exponents of a principle are accidents of circumstance, but the principle itself is always positive and unchangeable. If, then, the principle is so defective as to depend more upon its exponents than upon itself, the sooner it is altered or strengthened the better.

But it is easier to find fault than to suggest a remedy. In regard to this particular question, more than the usual difficulties are in the way. The attempt to overcome them involves a compromise between what we already have and what we may expect, rather than what we would like to have.

At present, medical registration, in this city at least, is a private enterprise. The *Medical Register* itself is private property, and because it has been well managed, and has gained the confidence of the profession, it has succeeded. The association of a few interested in its success was an inevitable circumstance of its inception and development. The editor, and the committee of the Medico-Historical Society, have done all the work, and are entitled to use their material as they please. This is a question of individual rights with which no one cares to interfere.

But naturally the profession, now that medical registration has become an established fact, are more

interested in the further and more perfect development of the system than in the individuals who have been and are still the practical expounders. Since the *Register* is considered an authority as to the standing of individuals in the profession, every one who desires to be placed right upon the record is interested in knowing for what reason his name may be omitted. The very fact that such an anxiety is shown by any physician should stimulate the proprietors of the annual to give every satisfaction to the malcontents. If their machinery is acknowledged to be powerful, they should use it in the charitable effort to elevate a weak brother, rather than run any risk in crushing him. The real difficulty, however, in the way of reform is that the enterprise is a private one, and that professional opinion must use its force in the direction of suggestion rather than compulsion. Whether there be any real grounds of complaint or not against the parties whose names are omitted, it would seem to be a matter of policy as well as justice to refer the matter to some other tribunal. This might appear to be straining a point to gratify a very few men who are acknowledged to be on the doubtful list, but we think that the end would justify the means; at least it would do away with the necessity for the annual growl against the ring of the *Medical Register* and of the Medico-Historical Society. It seems no more than right, if, when there is a possibility of committing an error of judgment in a matter which is now considered of such vital importance to individuals, that there should be another court to which an appeal might be made. Naturally, a committee from the County Society would be the most representative, as well as the most competent to decide disputed points. The fact that the complaining ones are in such small minority is the best reason why extraordinary pains should be taken to show fair play. Professional opinion has been cultivated to such a point that, when a name is omitted, either accidentally or purposely, from the list, there is a lurking suspicion that something is wrong with the individual rather than with the *Register*. While there are numerous exceptions to this rule, there are plenty of men who feel that they would have a better show if judgment of their case were not left in the hands of a close corporation. In view of the importance of the decision, and the weighty individual interests at stake, it would appear that the registering committee should, for the sake of their own protection, gladly divide their responsibilities with some other party. As we said before, however, this is a suggestion more than anything else, but we believe that timely attention to it will anticipate what, at no distant day, will be a demand of the profession at large, and conditional with its continued countenance and support.

In looking over the experiences of the past few years, in this or other cities, we have proved to us the importance of medical registration. This is none the less so from the fact that the undertaking is the result of private enterprise. As it is, however, it proves that when carefully, persistently, and accurately carried out, it can command the respect and influence of all good men. The question arises in this connection why the same success cannot be assured to the different county societies, and through them to the respective societies of the State. Beyond the area of the latter no particular register can pretend to be trustworthy; but when we consider with how little trouble a yearly list of every regular practitioner throughout the State can be published, we wonder why it has not been done before. If such a register were issued, even in pamphlet form every year, every medical man in the State would be interested in the success, and would be careful to fulfil all the conditions necessary to the appearance of his name and address.

And from being useful to the profession, such a list could be made of value to the public by its official publication in the daily papers. Such a course would be eminently proper, would make no invidious distinction, and would give the public the opportunity of knowing who were the properly qualified medical practitioners in their neighborhood.

THE HIGHER MEDICAL EDUCATION—THE BEST INTEREST OF THE PUBLIC AND THE PROFESSION.

THE above was the title of the address, an abstract of which will be found in the column of Medical News of this number, delivered by Professor Wm. Pepper, M.D., before the trustees, faculties, students, and friends of the Univerity of Pennsylvania, on Monday last, on the occasion of the opening of the session of 1877–78, at the University Medical School. That school has determined to lengthen its course to three years, to have a regular gradation of studies with yearly partial examinations, and the examinations for a degree held by an impartial uninterested Board of Examiners, seven in number, selected from the whole medical and clinical faculty.

The address, which was a thorough, thoughtful, and comprehensive survey of the whole subject of medical education in its American phases—and which we understand is to be soon published in pamphlet form, together with some tables of statistics—went over the ground so thoroughly as to consider all objections and leave nothing unsaid in favor of the reform instituted.

When the matter came up for criticism in Philadelphia last spring, the chief argument against the proposed change was that no reform was called for, as the standard of medical education in this country was fully up to our wants and all that our present stage of development rendered needful. The doctor has completely exploded this myth by a reference to "Aitken's General American Register," published in

1773, in which the requirements for admission to and graduation from the University Medical School are described. According to this, the applicant for admission, unless a bachelor of arts, was obliged to pass a preliminary examination. There were two degrees. M.B. was given after a year's course in anatomy, materia medica, pharmacy, chemistry, and theory and practice of medicine, apprenticeship in the office of a practitioner, and attendance upon clinics. M.D. was not given until three years after graduation and upon the presentation and defence in public of a Latin thesis upon some medical subject. That was the standard of 1773! Since that time the status of medical education in America has been steadily and persistently settling down. As regards the other objection, that the new system would over-educate physicians and render them impracticable, the experience of European schools and that of Harvard in this country prove its manifest absurdity.

Having pretty thoroughly and convincingly answered all objections, the doctor, after stating the present state of the question abroad and our own backwardness, proceeds to call attention to the three principal evils of the present system: the immense over-production of medical men in this country, the lowering effects of the present state of affairs upon the tone of the profession as shown in the growth of humbug and quackery, and last of all, the growing evil of the dispensary system. The address closes with a petition for interference on the part of the State legislatures and the initiation of regular medical legislation.

The whole tone and thought of the oration meets our most cordial approval. The evils of the too rapid overflow of medical men are everywhere apparent, chiefly so in the manifest inability of the vast majority of these graduates to find any means of supporting themselves in an already overcrowded profession. Still, in spite of all these obstructions, the medical schools continue to increase and multiply, and in such unlimited competition, as the doctor says, that the one succeeds best who chargest the lowest fees and graduates its students at the shortest notice.

The need of reform is absolute and immediate. The way which the Philadelphia school has chosen is the right, if it is a narrow way, and must inevitably, and that at no very distant time, be adopted by every institution which appreciates the responsibilities of its graduates, and is cognizant of the educational requirements of the age.

Solution of Quinine for Hypodermic Use.—Dr. James E. Morris, of Belleville, Texas, sends the following formula for a solution which in his practice has operated satisfactorily. Bromide of quinia dissolved in alcohol, grain for minim; to this solution water can be added to any dilution desired. It acts promptly and leaves no scar. One of the advantages claimed for this solution is that the alcohol prevents the development of fungi. It is readily absorbed usually, and has a peculiar quieting effect upon the nervous system.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, September 12, 1877.

Dr. E. G. Janeway, President, in the Chair.

EXTENSIVE OSTEO-PERIOSTITIS RESEMBLING ACUTE ARTICULAR RHEUMATISM.

Dr. A. C. Post presented a sequestrum, removed by operation from the os brachii of a boy aged fourteen years. About a year ago the patient, after exposure to cold, was seized with a severe pain in both shoulders and in one hip. All the symptoms so closely resembled those of acute articular rheumatism, that his physician made a diagnosis accordingly. In the course of time, however, abscesses appeared and communicated with dead bone. When Dr. Post saw the case, during the month of August, there were three or four sinuses in the left arm, penetrating an involucrum extending from near the shoulder to the elbow. Through each of these rough and bare bone was felt, as also through a sinus just below the opposite shoulder, and one in the neighborhood of the left sacro-iliac synchondrosis. The left arm, being most extensively diseased, was operated upon, and the specimen in question was removed from near the elbow.

By a somewhat remarkable coincidence, three weeks after this operation, Dr. Post was called to see a similar case in which a similar diagnosis had been made. This was a boy aged twelve years, who had acute inflammatory swellings occurring at three different joints, viz., the left shoulder, right elbow, and right knee. He was with his father at Long Branch July 1st, and was brought to this city on the 20th of August, and his family physician was sent for, who discovered a large collection of matter just below the shoulder, and evacuated it. The finger introduced into the opening thus made came in contact with dead bone. Dr. Post, having been sent for, enlarged the incision to the extent of two or three inches, passed his finger completely around the bone, and found that the periosteum was detached as far as the epiphysis. That portion, which was an inch and seven-eighths in length, was removed by a chain saw, leaving the epiphysis in the articular cavity. At the end of three weeks after the operation the epiphysis seemed to retain its vitality. The inflammation which affected the elbow was transient, but the knee was still swollen, and was bent at an angle of thirty degrees.

CYSTITIS ORIGINATING IN STRICTURE—THE DANGER OF HOSPITAL URINALS.

Dr. Post exhibited also the urinary bladder and kidneys from a patient of the Presbyterian Hospital, who died Sept. 2d, after having suffered for a considerable time with cystitis originating in stricture of the urethra. The mucous membrane of the bladder was thickened and eroded; both kidneys contained abscesses; the right was somewhat atrophied, its ureter being the seat of a stricture, and consequent dilatation above. The patient had considerable incontinence, and was obliged to wear a urinal pouch, his bladder being evacuated at stated intervals by the catheter.

Dr. Janeway believed that hospital patients were more liable to cystitis than others, for the reason that the urinals were not apt to be thoroughly cleansed, and consequently that there was more danger of bacteria finding their way up the urinary tract. Especi-

ally was this the case when the penis was allowed to soak for any length of time in a urinal pouch. In his service he made it a rule that the urinals should be constantly washed with an ammoniacal solution, so that absolute cleanliness should be insured.

Dr. Seguin concurred in this opinion, and was convinced that, with care in keeping catheters and urinary utensils clean, even in cases of paraplegia, cystitis could be prevented for an almost indefinite period. He was in the habit of using a separate catheter for each patient, and having the instrument constantly under water during the intervals of its continuous use.

Dr. Briddon remarked that he knew of many private patients who had worn urinal pouches for years without inconvenience. Possibly more than ordinary care was used in keeping them clean. In regard to the specimens of osteo-periostitis, Dr. B. referred to one in his experience which followed small-pox. In that case the knee-joint, one elbow-joint, and one-half of the clavicle were affected. He ascribed the disease to the absorption from the pustules. He had seen a few similar cases in ill-fed children who had suffered from scarlet fever.

Dr. Post remarked that there was a suspicion of scarlet fever in his second case.

UNEXPECTED DEATH—FATTY DEGENERATION OF THE HEART.

Dr Austin Flint exhibited a heart which he had not seen before that evening. It was not much enlarged in volume, the valves and coronary artery were sound, and there was nothing found except the gross appearances of a certain amount of fatty degeneration. The history of the specimen was this: Some few days ago, early in the morning, two gentlemen drove in a carriage to Dr. Flint's house, and one of them said that his friend had heart disease, was afraid to walk from the curb to the office, and desired the doctor to come out and examine him. Dr. Flint did not think that there was any special danger in such an undertaking on the part of the patient, and the latter came in the office. The gait was slow and he manifested in manner and in countenance a great deal of anxiety. Dr. F. found the heart palpitating. He satisfied himself that it could not be enlarged, that there was no valvular lesion, and informed the patient accordingly, assuring him that there was no danger, and that he should make his mind easy. He was instructed, however, to come again for another examination, which he accordingly did the day following. At this examination the heart was beating rapidly, the impulse did not give the impression of feebleness, and there was a systolic murmur heard over the body of the heart, but not transmitted beyond the apex. The opinion of the previous day was repeated, and after receiving some general directions the patient left. Dr. F. had an urgent summons in the evening to which he could not respond, and Dr. Perry visited the patient. Dr. F. remarked that there was one circumstance in the patient's history which did not however make the impression upon him which it should, and that was a period of unconsciousness after running upstairs. Dr. Perry obtained this history: The patient during the afternoon was seized with another fit of unconsciousness, which lasted for a few moments, during which time there was marked lividity. Dr. Perry, on his arrival, found the pulse not deficient in force and beating with regularity. He recognized the murmur, but nothing else; gave a favorable prognosis, prescribed an ethereal stimulant and left. During the same night Dr. P. was again summoned to find to his surprise his patient moribund, unconscious, and with scarcely an appreciable pulse. Of course in a short time the patient died. Dr. Flint, in the absence of any better cause for death, assumed that fatty degeneration existed, and yet during life, notwithstanding careful examinations, no auscultatory evidence of such a condition was found. The case was of interest not only in itself, but as proving that there is sometimes a risk in assuring the patient that there is no danger, and yet even at the risk of a mistake such an assurance should not be denied to them. In answer to questions from members, it was further stated that there was no membranous effusions in the meshes of the columnæ carneæ; that a few weeks before death the patient suffered from shortness of breath.

Dr. Janeway remarked that fatty degeneration of the heart was blamed for more sudden deaths than it deserved. Especially was this the case in deaths from chloroform, the slightest amount of extra fat upon the surface of the organ being seized as the immediate cause of death.

Dr. M. P. Jacobi referred in this connection to a specimen of heart presented last spring, in which the cause was not explained by any distinct pathological reason; and Dr. Janeway called attention to specimens of heart containing air, likewise exhibited by him at a previous meeting.

CANCER OF THE STOMACH WITH ABSENCE OF PAIN.

Dr. E. C. Seguin presented a stomach removed from a patient whom he had seen in consultation with Dr. Thurman. The patient, aged 75 years, enjoyed good health until the summer of 1876, when she fell below par. She visited the Centennial, but went through it without a chair, thus showing a considerable amount of endurance for her years. After her return she suffered from dyspepsia, anorexia, and nausea. Dr. S. saw her Nov. 13th. The only symptoms she then complained of was great weakness and marked emaciation. Dr. Thurman discovered a painless swelling in the left hypochondrium, just below the border of the ribs. From the absence of all positive symptoms this tumor also discovered by Dr. Seguin, was thought by both gentlemen to be impacted fæces. The swelling was manipulated and enemata given, and after a few days the mass seemed to disappear after the discharge of several scybalous masses. In the beginning of December the symptoms of dyspepsia became more marked. The first vomiting occurred only two weeks before death; was very slight in character. About this time there was regurgitation of food, mixed with a little brownish liquid. At no time was there any coffee-ground vomiting. The emaciation progressed, the repugnance to food was very great, and the loss of strength was extreme. Shortly after the disappearance of the tumor in the left hypochondrium, there was another tumor near the median line and on a level with the other tumor, which was duly recognized as an independent affair and as a cancerous growth. The specimen was chiefly interesting in connection with its clinical history. The specimen on examination was mainly composed of cylindrical epithelium.

Dr. Briddon referred to a case of cancer of the stomach, in which there was no pain or vomiting, but in which the diagnosis was made from the progressive emaciation. He asked if absence from pain was uncommon.

Dr. Flint answered that the absence of marked pain was the rule.

Dr. M. P. Jacobi remarked that, before arriving at a diagnosis of such cases by exclusion, two diseased

conditions should be taken into account, viz.: the prodromic stage of leukæmia, and progressive pernicious anæmia.

Dr. Janeway mentioned a case of cancer of the stomach, the diagnosis of which he made by discovering the umbilicated nodules of cancer of the liver. As primary cancer of the liver is rare, and as secondary disease follows cancer of the stomach, the presumption is legitimate that the latter condition of things exists. In addition to this evidence, when a tumor of the stomach exists, the diagnosis is quite positive.

In regard to vomiting as a symptom, much might be said. He believed that it was most frequently associated with deposits in the neighborhood of the pyloris. In that situation the peristaltic action of the stomach was seriously embarrassed. The contrary was the case with tumors in the line of the greater curvature—and hence, in those, absence of vomiting and pain was the rule.

DANGERS OF SIMON'S EXPLORATION—RUPTURE OF CYST OF SPLEEN.

Dr. Briddon presented a specimen of spleen for the purpose of illustrating some of the dangers associated with Simon's method of exploring the rectum.

The following history was prepared by Dr. Thos. W. Busche, Acting Senior Assistant to House Surgeon: Mrs. E. B., æt. 36, was admitted to the Presbyterian Hospital July 14, 1877; is a native of Switzerland, has been a factory hand most of her life.

Patient gives no account of any disease during her childhood and early menstrual life, except a mild attack of rheumatism. At this time she also had frequent, almost daily, bleeding from the nose. Began to menstruate at sixteen; courses regular but very profuse. Was married at twenty-one; has had five children at intervals of about three years; no miscarriages. Was delivered of her last child three years and three months ago; nursed it a year and a half. Her courses appeared six weeks after this accouchement, have been regular to July of last year, from which time till the present they came every three weeks; she missed her last turn. During her last pregnancy patient had an attack of what appears to have been pneumonia, which threatened to cause an abortion.

From July of last year a harassing cough, unaccompanied by any expectoration, has troubled her. Its severity at length obliged her to take to bed. One day in the early part of last April patient ventured to get up and do some housework. While thus engaged she felt dizzy, lay down upon a bed, and became unconscious. She remained so, she thinks, about ten minutes; then, having partially regained her senses, she attempted to rise, and found that the right side of her body and face was paralyzed, though not completely, and that she had lost her speech. Sensation remained unimpaired. In a week she had recovered sufficiently to get up and move about.

Three months ago patient noticed a lump, scarcely as large as an egg, in her left side, about an inch above the centre of the crest of the ilium. Shortly before it appeared she experienced stitching pains at the place whenever she would assume certain constrained positions. For a month after patient became aware of its existence the tumor did not inconvenience her in the least; then it began slowly to increase in size and to give her some pain; her urine became very red and turbid, and has continued so since. On the 4th of July, patient, while stooping at work, felt severe pains about the tumor. From this time it has grown very rapidly, and has given her much more pain than usual. Two or three weeks before admission patient was laid up with a painful swelling of the legs, which were covered with petechial spots. Her lower limbs have been similarly affected on several former occasions. Though patient has been living in a notoriously malarious region for years, she has not actually had chills and fever until just before entering the hospital.

Patient gives no history of disease of the heart nor of the lungs, nor does physical examination reveal anything abnormal. Examination of her urine indicates the existence of Bright's disease, which may account for the occasional pains in the back, with swelling under the eyes, which patient noticed ever since she came to America—eight years ago. There is no evidence of constitutional disease. It seems that patient has a marked disposition to hemorrhages in various forms.

On admission patient presents an emaciated and very anæmic condition. The right side of her face and body has not yet fully recovered from the paralysis. A slight swelling remains about her ankles, and bluish spots are still faintly visible on her legs.

A tumor the size of a new-born child's head is found in patient's abdomen, occupying completely the left iliac and lumbar regions. The lower portion of tumor has well defined limits; its upper portion is covered by the ribs. It is ovoid in shape, the smaller end, directed down and inwards, reaches the mesial plane in the hypogastric region. The tumor has an elastic feel, is distinctly nodular, slightly movable, somewhat tender, especially at its most prominent part, where it exhibits fluctuation. It is not connected with the uterus, which is perfectly mobile and of normal depth. Percussion over the tumor elicits a dull sound. This dulness may be traced up under the left ribs, and appears to be continuous with that of the spleen. Dulness is also heard at the back behind the colon. There is a small resonant space immediately above the posterior half of the crest of the ilium. With aspirator and fine needle about an ounce of fluid was withdrawn from the tumor for examination. It has a cloudy amber color, contains many small flocculi; on standing, an abundant whitish deposit soon falls; it is highly albuminous, of a sp. gr. 1020, reaction neutral. Under the microscope it showed a great abundance of very granular leucocytes, free nuclei, and a few red corpuscles. No mucus nor cholesterine crystals, nor any of the constituents of urine, could be found.

A hasty examination of patient's blood showed the red and the white corpuscles to be in normal proportion. Patient's urine has a dark reddish color and is cloudy. She says it is not as dark and turbid as it has been. It contains albumen five per cent., large and small hyaline and granular casts, also epithelial casts.

July 27th. At a consultation held this afternoon to determine a question of diagnosis (patient being under ether), several gentlemen examined the tumor through the abdominal walls, after which Dr. Briddon introduced his left hand into the lower bowel, and after a thorough exploration expressed the opinion that the tumor was splenic.

July 28th. Patient passed a restless night. This morning she gave all the symptoms and signs of a general peritonitis. Ordered Magendie's Sol. Morph. ℳx. subcutaneously every two hours, brandy internally, and turpentine stupes on abdomen. At 12 M. patient in a state of collapse; died at 6.40 P.M.

Autopsy twenty hours after death. Body already in an advanced state of decomposition.

Heart apparently normal.

Pleuritic adhesions on right side; *lungs* otherwise apparently normal.

The omentum adherent to, but easily separated from, the anterior abdominal wall. Peritoneum coated with recent lymph. A loop of small intestine lay across the tumor and was bound down to it by fibrous bands, as was also the omentum. An abundance of yellowish gray fluid in the dependent parts of peritoneal cavity.

The tumor, as felt through the abdominal walls during life, consisted principally of the *spleen*, which, when removed from the body, had a long diameter of ten and a half and a transverse diameter of five inches, was of a dark greenish color, weighed twenty-three and a half ounces, emphysematous with gases, the result of decomposition. Near its upper end anteriorly is an irregularly circular depressed cicatrix. On the anterior surface also there is an opening formed by the rupture of peritoneum and adhesions, leading to an irregular collapsed cavity in the substance of the spleen.

Liver weighs four pounds.

Cortex of left kidney of normal thickness.

A more minute examination of the organs is not practical, because of the degree of post-mortem change.

Dr. Briddon was by no means certain whether the rupture was that of cyst or a hematoma. At the time of the autopsy the body was in such an advanced stage of decomposition that it was impossible to determine the point with positiveness. It was, however, supposed to be a liquefied infarction, an opinion which was shared by several of the members present. The greatest care was used in introducing the hand, and no accident would have occurred if the organ in question had been healthy.

CONGENITAL DISPLACEMENT OF VISCERA.

Dr. Janeway presented photographs from the autopsy of a subject of congenital displacement of the viscera. The patient was an inmate of Bellevue Hospital, and his condition was recognized during life. On auscultating the heart, its beat was feeble and distant. At first it was supposed that hydro-pneumothorax existed, and that the organ had been crowded to the right side. The diagnosis was soon cleared up on that point, when congenital displacement was made out. Examination of other organs was made, when a transposition of the liver and spleen was discovered. At the autopsy, which was made with some difficulty (on account of the widow, who was aware of the anomaly), a complete transposition of the internal organs was discovered, namely, that of the liver, heart, spleen, large intestines, cæcum, sigmoid flexure, and arterial distribution. It was not ascertained whether or not the patient was left-handed.

DISTENTION AND RUPTURE OF BILE-DUCTS.—ABSCESS OF THE DIAPHRAGM.—PERITONITIS, ETC.

Dr. Janeway next recited a history of the post-mortem examination of the late Dr. John A. Brady, of Brooklyn. He made the autopsy in company with Drs. Flint and Hutchinson. The body was deeply jaundiced. On opening the peritoneum there were evidences of recent peritonitis, the intestines being agglutinated, and the cavity containing bile-stained serum. The transverse colon, pyloric extremity and duodenum were bound together against the under-surface of the liver. The latter organ was normal in size. The left pleural cavity contained fluid compressing the left lung. At the apex of this organ there was a small amount of fibrinous exudation. There was œdema of the right lung and congestion throughout, except along the anterior border. The lower lobe was also the seat of lobular pneumonia. The liver, duodenum, pyloric extremity of the stomach and transverse colon, were removed in one mass. In detaching the liver, the left half of the diaphragm was found filled with pus. On opening the duodenum, the common duct was found to contain a large, thick, black and porous calculus about as large as a hickory nut, and behind it another of similar character. The common duct was normal in size, but the cystic and hepatic ducts were markedly dilated. In the gall-bladder, which was small and diminished in size, was a small calculus with facets bathed in a little bile of yellowish color. On tracing up the bile-ducts, they were found markedly dilated from obstruction, and in some places suppuration had taken place. At two different points in the neighborhood of the coronary ligament, the cellular tissue was infiltrated with bile. This latter condition was evidently due to the rupture of one of the distended ducts, inducing abscess of diaphragm, peritonitis, pleuritis, and pericarditis.

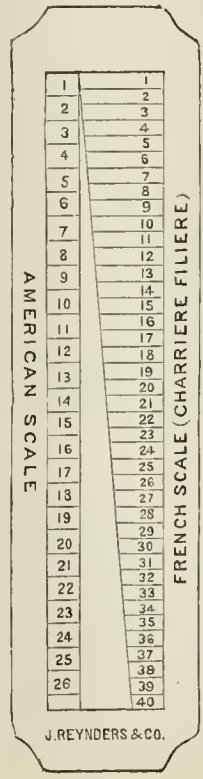
Dr. Flint stated that fourteen years ago Dr. Brady had several attacks of hepatic colic, attended with the passage of several gall-stones. After this he was free for several years. Two or three years ago he complained of uncomfortable sensations, but there was no distinct attack until the week before he died. This passed off in the usual manner, and a second attack, a few days after, was followed by peritonitis, and death in forty-eight hours.

The Society then went into executive session.

New Instruments.

A NEW CATHETER-GAUGE.

By H. E. HANDERSON, M.D.



The accompanying cut represents (half size) a simple, convenient, and accurate "Catheter-Gauge," constructed on a somewhat novel principle. It consists of a metal plate perforated by a triangular opening 169.33 mm. (6.67 in.) in length, with a width at the base of 13.33 mm. (0.525 in.). This opening is graduated to both the French (Charrière) and American (Van Buren) scales, while the reverse side of the plate contains the nearest approximation to the so-called English scale, with a comparative scale of English inches and French millimetres. The catheter, sound, etc., to be measured, is simply inserted in the base of the opening and slid towards the apex as far as it will go, when the parallel lines will at once indicate its size according to either scale. Those practitioners who devote much attention to urethral diseases, will, I think, find this gauge a useful and reliable instrument. It is manufactured by John Reynders & Co. of this city.

784 Lexington Avenue, Sept. 4, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 23 to September 29, 1877.

Woodhull, A. A., Major and Surgeon. When relieved from duty at Camp Halleck, Nev., to proceed without delay to Alcatraz Island, Cal., and report for duty at that post. S. O. 117, Div. Pacific and Dept. of California, Sept. 21, 1877.

Moseley, E. B., 1st Lieut. and Assistant Surgeon. Assigned to duty at Jackon Barracks, La. S. O. 147, Dept. of the Gulf, Sept. 20, 1877.

Crampton, L. W., 1st Lieut. and Assistant Surgeon. Assigned to duty at Jackson Barracks, La. S. O. 146, Dept. of the Gulf, Sept. 19, 1877.

Taylor, M. E., 1st Lieut. and Assistant Surgeon. Reassigned to duty at Baton Rouge, La. S. O. 148, Dept. of the Gulf, Sept. 21, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending September 29, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Sept. 22.....	0	27	38	2	6	45	0
Sept. 29.....	0	31	48	1	4	53	0

Opening of the University of Pennsylvania Medical School.—The new régime at the University Medical School began on Monday, October 1st, at 12 M., with the introductory address delivered by Prof. Wm. Pepper, M.D. The changes instituted in the medical curriculum last spring take effect, it will be remembered, with the opening of the present session. The address was delivered in the University chapel, and was listened to by a large and attentive audience, consisting of the Board of Trustees of the University, the various faculties, a large number of city officers, members of the medical profession, and others. The address was upon the subject "The Higher Medical Education—The True Interest of the Public and Profession," and was exhaustive and masterly. Prof. Pepper only read selections from the oration, the whole of which, together with some interesting statistics, will be published in pamphlet form on or about November first.

The main argument of the address, written down in brief, would run somewhat as follows, viz.: The monotonous routine of medical education within the last fifty years, with no improvements and few new features adopted. The enormous material progress of our country compared with its backwardness in art, science, education, literature, and statesmanship, as seen at the Centennial Exposition last summer. The position of the medical profession in America far from satisfactory. The high moral tone of the best element of the profession contrasted with the fact, that of all professions it is the one in which the fewest members are able to earn an honest living. The question of reform. The objection to this reform, on the ground that the present status of medical education is fully up to our present state of development, met by the showing of the requirements for a degree of the University of Pennsylvania Medical School in the year 1765. (This was the first medical school established in America.) *These requirements show that a far higher standard of medical education was demanded and in vogue then than we now possess, and that since that time the standard has been steadily going down.* Among other things, attendance upon clinics was obligatory from 1765 to 1845—since then it has been entirely voluntary. The University has been the parent of all American medical schools, and if she lowered her standard it was but natural that they should follow her example. Abroad, where the medical schools have kept abreast of progress in medical science, we notice five conditions not found in America (except at Harvard and the University of Michigan, and in future at the University of Pennsylvania), viz.: (1) Preliminary examinations; (2) terms of nine months each for four, five, or six years, and a regular gradation of studies; (3) partial examinations at intervals; (4) examination for a degree by an impartial, disinterested board; (5) careful personal, clinical, bedside training. In many countries the degree of B.M. *only* is given at the end of this period, and that of M.D. conferred after from three to five years' additional hospital study. The fact of a higher standard existent not only in the old and wealthy nations, but even in Brazil and Australia. The objection that the adoption of these reforms would produce a class of hyper-educated physicians, too absurd for confutation. Barbers serve a three-years' apprenticeship, carpenters are four years in learning their trade, and pilots seven. Nowadays it in reality only requires *ten months* (two terms of five months each) *to learn the practice of medicine!* Government cannot restrict the number of medical schools. Though protective in other matters, it has never attempted protection in medical education. In other countries there is about one medical school to every 3,000,000 or 5,000,000 of inhabitants. Here, with 45,000,000 of people, we have sixty-five regular medical schools. The fees at American medical schools have been lowered and the terms shortened to avoid being underbid in this unlimited competition. The supply of not only medical schools, but also of medical men, has run ahead of the demand. The three glaring evils of the present system are: (1) The enormous over-production of medical men. In the year 1875, 3,000 medical practitioners were qualified. In addition of this number, it has been calculated that 200 physicians emigrate annually to America. It requires from 1,500–2,000 persons to support a doctor. With a population of 45,000,000 in 1877, we have some 62,383 medical practitioners. This makes a proportion of one doctor to every 618 of the population. The immense difficulty of a living to the rank and file of the profession with this condition of affairs. (2) The lowering effects upon the moral tone of the profession of this state of things, and the increase of quacking and humbug. The frequent reports of the sale of "Bogus American Medical Diplomas" abroad. (3) The evil effects of the vastly increased and increasing number of medical dispensaries. It has been calculated that in London fully one-fourth of the population depend entirely upon gratuitous medical assistance. Of these a large number are entirely able to pay for the services of a physician. Evidently, the time is ripe for complete and unsparing reform.

The remedies proposed: (1) A higher diploma to be conferred after a post-graduate course of instruction. But here the answer is made us, that this new degree

also can be bought and sold. (2) The only real remedy then is and must be—action by the legislatures of the separate States. Canada, at present, has regular legislation in this matter, and there is no reason at all why our State legislatures should not appoint regular committees to take control of and supervise the system of medical education. This has been the burthen of commencement addresses for years past. Then, as to change in the requirements for a degree, while we are waiting for legislatures to set to work. Harvard made the change in 1871. Her plan was crowned with eminent success, and the superior quality of her medical graduates at once acknowledged. Lately, the University of Michigan has also made the change, and the Johns Hopkins School at Baltimore is to be built upon the same plan. The University of Pennsylvania also has fully made up her mind to take the step and intends to persevere in this straight path, no matter how small her classes become in consequence. In order that the degrees obtained at the University of Pennsylvania medical school may be recognized as the guarantee of their possessor's superior preparation, the words "*University of Pennsylvania*" are to be added to the statement of the degree of M.D.

The number of students forming this year's class at the University, contrary to all expectation, is but slightly, if at all, behind last year's matriculating class in numbers. In fact, from present appearances, it looks very much as if the American public, which, according to some of the enemies of the new system, would not appreciate physicians educated above the wants of the community, intended on the contrary to show its full appreciation of this new step in the right direction, by sending a larger number of its sons than usual to the University medical school, and so making the class this year larger than it was last.

American Academy of Medicine.—An association of medical men and laymen with the above title has been formed, numbering thus far forty-three names. The object of the said organization is to advance the interests of scientific medicine with the public. The next meeting will be held at Easton, Penn., on the third Tuesday in September, 1878.

New York Society for the Relief of Widows and Children of Medical Men.—At a quarterly meeting of the Board of Managers, held at the New York Academy of Medicine, on September 19, 1877, Surgeon George Peck, U. S. Navy, was unanimously elected a life member. Medical Inspector Peck had contributed one hundred and fifty dollars to the funds of the Society in June last, and was in that month elected a benefactor.

Introductory Lectures.—The introductory address to the winter course of lectures at the College of Physicians and Surgeons was delivered on Monday evening, October 1st, by Prof. John G. Curtis—subject: "Plant and Animal Life."

The introductory lecture of the regular course at the Medical Department of the University of the City of New York, was delivered on Tuesday, October 2d, at eight o'clock, P.M., by Prof. William H. Thomson.

The opening exercises of the winter session at the Bellevue Hospital Medical College took place on Wednesday evening, October 3d, at eight o'clock. The address was delivered by Prof. William M. Polk.

New York Veterinary College.—The reopening of the New York College of Veterinary Surgeons took place at their building, No. 205 Lexington Avenue, on the evening of October 1st, at eight o'clock. Addresses were delivered by Dr. Rawson, President of the College, and by Profs. Going, Fairfield, Finlay, and Comstock.

Prof. Lewis A. Sayre.—We are happy to chronicle the safe return of this distinguished surgeon from his visit among the scientific men of the Old World.

Yellow Fever.—Reports from Augusta, Ga., dated October 1st, state that four deaths from this disease have occurred in Port Royal, S. C. Special dispatches from Jacksonville, Fla., and bearing the same date, bring the information that fifteen new cases had been seen that day in Fernandina, and that medical assistance had been asked for from there and from Charleston. The weather is unfavorable, and nearly one-sixth of the present population at Fernandina are sick with the fever. No new cases have been reported in this city.

Medical Society of the County of New York.—At a stated meeting of this Society, held Sept. 24, 1877, it was voted to grant certificates of membership to Drs. D. F. King and R. A. Page.

Dr. J. H. Pooley, Prof. of Surgery in Starling Medical College, after having completed the course of lectures at Dartmouth College, interrupted by the sudden death of Prof. Crosby, has returned to Columbus, where he will deliver the surgical course during the coming winter.

The Tuke Prize.—The W. and S. Tuke Prize (one hundred guineas) has been awarded to Dr. E. C. Spitzka, of this city, for the best essay on the Somatic Etiology of Insanity, by a committee of the Medico-Psychological Association of Great Britain.

The Visiting Corps of the Health Board.—We have received the following letter from a member of the Visiting Corps of the Health Board, and gladly give it a place: "As I think a wrong impression will be given by your editorial in the Record of September 22d, in reference to the Visiting Corps of the Board of Health, it seems to me but right that you should explain that the average of 94 visits a day, referred to in Dr. Janes' report, does not mean that 94 cases of illness were visited in a day, but simply that the physician inquired at the rooms of 94 families whether there was any sickness there. In many families there were no children at all, and in the vast majority of others there either were none sick, or else the patients were already under medical care; so that the number actually prescribed for was comparatively small (about one in every 28 families). When you reflect that many of the tenement-houses contain twenty families apiece, it will be seen that 94 visits is not such a large number after all. This note is not intended for publication, but I trust that you will do the Board of Health Visitors justice in this matter."

Comparative Longevity.—Official documents show that in Italy, for every million of inhabitants, there are 71,602 individuals who have attained the age of 60 years; in Great Britain there are 72,910; in Holland, 76,982; in Sweden, 78,187; in Denmark, 86,657; in Belgium, 88,432, and in France, 101,495. On the other hand, Great Britain has 15 centenarians for every million of inhabitants; France has 7.3; Belgium, 7; Sweden, 2.6, and Holland, 1.3.

Death from Chewing Tobacco.—A boy was recently admitted into the Melbourne Hospital, suffering from the effects of chewing tobacco. He was in a very weak state, and complained of severe headache and dysentery. He became gradually unconscious and partially paralyzed, and died on the following day. The cause of death was narcotic poisoning.

Original Lectures.

LECTURES ON DISEASES OF THE HEART.

By AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Reported for THE MEDICAL RECORD.]

LECTURE VI.

FUNCTIONAL DISORDERS OF THE HEART—REDUPLICATION OF HEART-SOUNDS—ALTERNATE STRONG AND WEAK SYSTOLE—INFREQUENCY OF THE HEART'S ACTION—INCREASED FREQUENCY OF THE HEART'S ACTION—INTERMITTENCY OF THE HEART'S ACTION.

GENTLEMEN:—I will next call your attention to the functional disorders of the heart; those disorders which do not involve inflammation, nor any appreciable lesion either of the valves or the walls of the organ. These functional disorders vary in character. They may coexist with organic lesion, yet having no mutual dependence upon each other. I will raise this question at the outset: How are we to determine that disorders of the heart are functional? The answer is this: we are to determine by the absence of physical signs of organic disease of the heart. We reach the diagnosis of functional disorders of the heart by exclusion; we exclude organic lesions. The different organic lesions, having, as they do have, diagnostic physical signs, the absence of those signs warrants the exclusion of the lesion. As a general statement, this is true. There are a few exceptions, but if with a proper degree of knowledge and self-confidence, and sufficiently careful examination, we find that there are no signs present of organic disease of the heart, we are justified in saying that the trouble, whatever may be its manifestations, is functional. We are able to say that the patient has no organic disease of the heart. If you have not already had the opportunity to make the observation, you will learn in the course of time how desirable it is to be able to make that statement to your patients, for with most of the functional disorders of the heart there is connected a great deal of anxiety and apprehension. Patients come to us for examination with the greatest trepidation; are reluctant to have an examination made, for fear that something wrong about the heart will be found. Perhaps there is no class of affections more terrible to the patient than diseases of the heart; nothing which strikes the mind with more terror than the idea of sudden death, so commonly associated with these affections. This common idea is fallacious, for the great majority of cases of organic disease of the heart do not terminate suddenly; but patients are not prepared to make any discrimination with regard to the different forms of organic disease of the heart. To say that they have disease of the heart is sufficient oftentimes to produce great terror, and that fact is to be considered. Suppose you find a lesion which is innocuous, as we do not infrequently; if we are *obliged* to say there is an organic affection, the statement should be coupled with such explanation as to remove the apprehensions naturally entertained by the patient. To impress more and more this negative method of reaching the conclusion that there exists only a functional disorder of the heart, let us suppose that here is our patient before us in a great state of anxiety and apprehension, and watching closely, as they will do, while you are making your examination. He has stated his symptoms, you have examined the pulse, obtained the history of the case, and have perhaps in your own mind already reached nearly a positive conclusion in favor of its being a case of functional disturbance. But we cannot feel confident that no organic disease of the heart is present, unless that conclusion is based upon physical exploration and the absence of physical signs of organic disease. The physician, in order to produce the desired moral effect upon the patient, and relieve him from apprehension, must speak with a confidence which he cannot very well assume, unless it is based upon a conviction derived from physical exploration. We see the evils of this in practice. If the physician does not feel competent to reach a correct conclusion, he must resort to one of two things: either form a conclusion and take the risk of being in error, and do harm in that manner, perhaps by saying that the patient has an organic disease, when the truth is it is merely functional in character; or, on the other hand, call it functional when it is organic, and perhaps the patient dies suddenly; or, what is more commonly done, as we learn by experience to be reserved and non-committal, he does not give a positive opinion. Perhaps he says in this manner, "There is nothing of any great importance in your case," in a kind of indefinite way, and the effect is this: the patient thinks the physician believes he has disease of the heart, but does not wish to tell him. Patients rarely appreciate our ignorance, and that is the conclusion they draw from such non-committalism on the part of the physician, namely, that he knows, but does not choose to tell; whereas the truth is he does not know, and he answers indefinitely, because he knows that if he does otherwise, he runs a risk of committing an error in diagnosis.

Let us proceed with the examination of our patient. In the first place, we naturally direct attention to the size of the heart. Is it enlarged? To settle this question the apex-beat is found. Is it in its normal situation? Does an oblique line from it to the centre of the sternum form the hypothenuse of a triangle which outlines the superficial cardiac space? Is the area of cardiac dulness normal? We have now found that this patient's heart is not enlarged.

Next, with regard to valvular lesions, and we are satisfied, from the fact that there is no enlargement of the heart, that there is no immediate danger from those, for they give rise to danger by first producing enlargement of the heart and enlargement by dilatation.

But we wish to go farther. We have determined that the heart is not enlarged, and we will now determine whether there are present valvular lesions. We exclude lesions at the mitral orifice and those at the aortic orifice because we find no murmur, either systolic or diastolic. We will go one step farther and compare the aortic and pulmonic second sound, and we find that they bear a normal relation to each other. These conclusions may be reached with a very brief examination, but here let me give you a caution. Take sufficient time to make an examination which will be satisfactory to the patient and produce the desired moral effect. For your own satisfaction it may not be necessary to spend more than two minutes in making the examination; but to leave the impression upon the mind of the patient that your examination has been *thorough*, an impression that will greatly increase the value of your declaration that there is no organic disease of the heart present, it is well to consume perhaps ten minutes in the examination. That length of time will give you ample opportunity to

study the normal vesicular respiration at various places over the chest, and afford you an opportunity to familiarize yourself more thoroughly with the first and second sound of the heart, and all the relations which they sustain to each other. Having done this the patient will be very likely to have the impression that the examination has been thoroughly and completely made, and we can say to the patient that the heart is sound, and say it in such a manner as will convince him that he has a sound heart. There are no diseases, perhaps, in nosology where the signs are so constantly demonstrable as diseases of the heart, and perhaps no class of diseases which we are better warranted in excluding by the absence of those signs.

Let us now consider the different forms of functional disorder of the heart.

First, we have REDUPLICATION OF THE HEART-SOUNDS. This form possesses no great amount of practical importance, but it possesses interest, and we must be prepared to recognize it. By reduplication we mean one or both of the two sounds of the heart duplicated for each pulse; that is, four sounds, if both normal sounds are reduplicated; if only one sound is reduplicated we have three sounds. It is not common to find reduplication of both sounds.

It is exceedingly rare to find reduplication of the first sound without reduplication of the second, but it is tolerably common to find reduplication of the second without coexistent reduplication of the first sound of the heart.

The reduplication may be represented as follows: If the normal sounds are represented by the syllables lub-dup, the reduplication of the second sound will be represented by the syllables lub-dup-dup.

We occasionally meet with cases in which both sounds are reduplicated, and in which such reduplication can be appreciated. How do we determine the reduplication? If we have four heart-sounds for each pulse, the interval of time between the heart-sounds is very small, and it is of particular interest to know how we are to distinguish this form from the next functional disorder to be considered. We are to determine the fact of reduplication in this manner: we compare the heart-sounds with the pulse; not the radial pulse, but the carotid pulse.

If the second sound is reduplicated, the rhythm is so peculiar that we can hardly mistake it. What is the explanation? The first explanation given was that the heart ventricles did not complete their contraction; that they stopped for an instant between the commencement and the end of the contraction, and then completed it. The most rational explanation, and that generally adopted, I believe, is this: We have in the reduplication of the heart-sounds a want of exact synchronism in the contraction of the two ventricles. Normally the ventricles contract together, but if one contracts a little before the other that fact accounts for the reduplication. Why is it, then, that we fail to have reduplication of the first sound in so great a proportion of cases, if that is the true explanation? If it is the correct explanation, we might naturally expect that both sounds would be reduplicated with equal frequency. The explanation is this: When reduplication of the heart-sounds is present, we have a feeble-acting heart; that is, the ventricular sounds are divided, and, of course, each is weakened. Now the first sound, so far as the valvular element is concerned, is a weaker sound than the second. When, therefore, the heart is weakened by this form of disorder, we do not get more than one of the elements of the first sound produced; we lose the first sound which is produced by the right ventricle, and the reduplication is not produced. But, under these circumstances, the second sound being louder and sharper in health, so far as the valvular element is concerned, we have an appreciable reduplication.

This form of functional disorder has more of scientific interest than practical importance. It occurs sometimes with valvular lesions, and sometimes in connection with healthy hearts. It sometimes continues for a few minutes only, and sometimes for hours and days; more frequently, however, it is transient. It is not attended by appreciable symptoms and does not claim any special treatment, and the reasons for its occurrence are not well understood.

ALTERNATE STRONG AND WEAK SYSTOLE.

The next form of functional disorder is likely to be confounded with reduplication.

We meet, occasionally, with a form of functional disorder of the heart in which every alternate systole is too weak to produce a radial pulse. The ventricular contraction is too feeble to produce a sufficient momentum of the arterial blood to cause a radial pulse to be appreciated with the finger. This occurs regularly, so that the pulse at the wrist represents only every alternate systolic ventricular contraction. It is very curious to notice with what regularity this irregular action of the heart is preserved, and it may continue for successive days.

Many years ago, before being acquainted with this form of functional disorder, I regarded it as a reduplication, and, moreover, observed and reported a case in which the interest rested chiefly in the fact that "reduplication of the heart-sound continued several days." As I was afterwards satisfied, this was a case not of reduplication, but of the form of disorder under present consideration.

There is a mode in which you may avoid this error, and that is, by making your observations in connection with the carotid pulse. This alternate weak systole is usually strong enough to produce a carotid pulse. This form of functional disorder may occur with valvular lesions, with enlargement of the heart, or it may occur without cardiac disease. The disorder has no special significance. Why it occurs we cannot explain. The patient may not be conscious of it. It claims no particular plan of treatment. It is more interesting as a clinical curiosity than as possessing any practical importance.

INFREQUENCY OF THE HEART'S ACTION.

Another form of functional disorder is infrequency of the heart's action. Not much attention has been given to this form of disorder, and, if I mistake not, my own knowledge of it has been acquired since the publication of the second edition of my work upon Diseases of the Heart.

The heart's action may be so reduced in frequency that we get a pulse numbering 50, 40, 30, and perhaps even less than that. I have met with a few such cases, and have reported them in a short paper which was read before the New York Academy of Medicine, and subsequently published in the "American Practitioner." In order to distinguish between this form of disorder and that in which we have alternate weak systoles, we have first to determine that the pulse corresponds in frequency with the heart's sound. If they accord, that is sufficient to exclude alternate strong and weak systoles.

If the pulse is diminished much in frequency, it is accompanied with certain nervous symptoms which do not correspond in all cases.

The patient is sensible of a certain feeling of dis-

comfort, and sometimes has a sense of impending death. In some cases there is a certain amount of mental aberration and a general feeling of prostration. Of course, in examining such a case, and before it is pronounced to be one of functional disorder, we must exclude organic disease of the heart as in all the different forms of functional disorder, by the absence of the signs of organic disease. This form of functional disorder does not tend to a fatal result; there is no danger accompanying it. In none of the cases in which I have observed it has a fatal termination occurred, but, on the other hand, all the patients have recovered from it after a short time.

It is not easy of explanation. It would seem that the retarded action of the heart is produced by some influence transmitted to the organ through the *par vagum*. In determining that we have this form of functional disorder, we must take into consideration the fact that the heart's action is rendered infrequent by cerebral disease, and by the influence of certain drugs. Of course, all these must be excluded before the conclusion is reached that the patient has this form of functional disorder of the heart.

The indications for treatment are to stimulate the patient by the use of alcohol, and perhaps counter-irritation.

This form of functional disorder is interesting, because of its infrequency, and it has scarcely been recognized as a form of functional disease of the heart.

INCREASED FREQUENCY OF THE HEART'S ACTION.

In the forms of functional disorder of the heart commonly met with, the action of the heart is increased in frequency without disturbance of the rhythm.

This disorder is illustrated in that very curious disease known as exophthalmic goitre, or Graves's disease, or Basedow's disease, in which we have a persistent frequency of the heart's action, 130 or 140 beats to the minute, and perhaps continuing so for years. We should naturally suppose that this, like other muscles, would become fatigued by such persistent rapid movement, but such is not the case. We meet occasionally with cases in which there is a rapid action of the heart persisting for days and weeks with regularity of rhythm, without the protrusion of the eyes and the enlargement of the thyroid body present in exophthalmic goitre. Still, these cases are comparatively infrequent. In the great majority of cases of functional disorder of the heart, characterized by increased frequency of the heart's action, we have with the rapidity a disturbance of the rhythm, or irregularity, and the disturbance occurs in paroxysms. These paroxysms are of variable duration. It may be for an instant only. The most common form is this: the patient is suddenly seized with a rapid and irregular action of the heart, and he is conscious of it, and painfully so—and it produces a fear, not infrequently, of sudden death. These paroxysms appear at different times with greater or less frequency, and in some instances the irregular action of the heart is excessive; the patient has an "insane heart," which may continue so for days, and sometimes for weeks. When it does continue so long, the consciousness of it is so painful and the apprehension so great, that we can hardly help feeling a great interest ourselves, lest there is something present more than functional disorder.

INTERMITTENCY OF THE HEART'S ACTION.

The form of functional disturbance which, perhaps, excites most apprehension is intermittency of the heart's action. This is frequently associated with palpitation, as it is called. There is an exceedingly irregular action of the heart—"fluttering" is a term used by many patients to express it; sometimes a violent action, as though the heart was "struggling to get out of the chest, when suddenly there is an intermission in the heart's beat. The patient is conscious of this, and the suggestion to his mind is, "I am in danger of sudden death." Now, intermittency in the heart's action occurs in connection with valvular lesions and with enlargement of the heart. It occurs when the patient is not conscious respecting the presence of organic disease of the heart, and it is apt to occur in persons advanced in years without any coexisting evidence of organic disease. Intermittency in itself is never evidence of organic disease of the heart. It occurs often when the patient is not conscious of it; but the intermittency in this form of disorder is attended with the most vivid consciousness. Generally in the functional disorders of the heart in which the heart's action is increased, the heart-sounds are abnormally intense, especially the first sound. This is easily explained. I have had occasion to call your attention to the fact that when the ventricle acts, the curtains of the valves are already floated out so that they are actually in contact with each other. But when the heart is acting rapidly the ventricle contracts upon a small quantity of blood, and the consequence is that the valves are not thus floated out. We have, therefore, an intensified valvular element of the first sound; it is peculiarly sharp, loud, and valvular in some cases. Now, with regard to these forms of functional disorder of the heart, we are called upon to say to the patients, no matter how much disturbance there may be, or how great distress they may occasion, that there is absolutely no danger. We are warranted in saying that positively, and that mere statement is sometimes more important to the patient in way of curative influence than any remedies which can be employed. It is always important to say to the patients that they *must not* form the habit of feeling their pulse, and must keep themselves as far as possible from any knowledge whatever of their hearts.

How are we to treat these cases of functional disorder of the heart? We are to take into account the causation. Now, causation involves a natural conformation or natural constitution in some persons. There are some persons who have what we call irritable hearts, hearts easily excited into functional disturbance. To these persons we are obliged to say that very likely they will not be cured entirely. We may also say that we believe there is no danger, and that they will finally get over the disturbance to such an extent as to have but comparatively little of it. Aside from this innate predisposition, what are the causes? Tobacco is one; and, perhaps, when only moderately used. Functional disturbance of the heart occurs in connection with dyspepsia. It is said to do so from sympathy, but whatever may be the bond of sympathy, it is a clinical fact that the two conditions are very frequently associated. The condition of anæmia favors functional disorders of the heart. Prolonged mental anxiety is a very frequent cause of these disorders; and excess in venery is also to be mentioned. When patients ask me concerning the cause of this disturbance about the heart, if it be functional, I usually enumerate the different causes and leave them to judge as to how far they are applicable in their own cases.

Of course, treatment involves removal of these causes. In cases of anæmia the treatment involves the use of chalybeates, hygienic measures, and measures to improve the appetite and assimilation. In

those cases in which we find evidence of a naturally irritable heart we cannot say that cure is to be permanent, but we can promise the patients, with a good deal of satisfaction, that with the removal of all causes within control, and the use of certain measures for the relief of these, a certain degree of benefit will be sure to follow.

Finally, I wish to call your attention to the fact that we may have functional disorders coexisting with organic lesions, but not dependent upon them. The same causes which give rise to functional disorders of the heart in persons otherwise healthy, will operate in those who have organic disease of the heart, but in such cases the functional disturbance is more likely to be troublesome than when unassociated with organic lesions. How are we to determine the presence of functional disorder coexisting with organic disease of the heart? After a certain amount of practical observation it will not be difficult to answer this question. First, you will ascertain whether any of the causes of functional disorder are operating. Next, we can determine by physical signs whether the organic lesions which exist would be likely to occasion so much disturbance of the heart. We can determine that the organic lesions are not important. Now, suppose that symptoms of functional disturbance are present with little or no enlargement of the heart, or what enlargement is present is in the way of hypertrophy; we know very well, under these circumstances, that the lesions do not generally give rise to grave results. If, therefore, we find the phenomena present which have been described under the head of functional disorders, we have good ground for the conclusion that the disturbance complained of is functional, and if treated as such the patient is usually relieved. Functional disorder is especially present in patients with organic disease of the heart when they become anæmic. Let anæmia be developed by indigestion, by lactation, etc., and palpitation will be developed and become a troublesome symptom, and here we are to be careful that the disturbance is not imputed to the organic affection while it is due to that which gives rise to the functional disorder.

I wish to have you recognize this fact, that, in individual cases, we may have with organic lesions important functional disorders of the heart, and that we are to endeavor to avoid the error of attaching undue importance to the organic lesions from the fact of coexistent functional affection; for with the removal of the functional disturbance, the patient will suffer simply from the organic lesion, which may give rise to no symptom whatever.

NON-SHORTENING OF THE CERVIX UTERI DURING UTERO-GESTATION.

BEING ABSTRACT OF REMARKS MADE BEFORE THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK, SEPTEMBER 24, 1877, ON A PAPER READ BY DR. P. BRYNBERG PORTER, ON "AN ANALYSIS OF THE EXAMINATION OF SEVENTY-SEVEN PREGNANT WOMEN, WITH A SYNOPSIS OF THEIR LABORS."

By ISAAC E. TAYLOR, M.D.

OF NEW YORK.

Mr. President and Gentlemen: — The remarks which I shall make on this paper, just read by Dr. Porter, will relate chiefly to the condition of the cervix uteri during utero-gestation and after labor. So far as I am aware, the different views regarding the changes which occur in the neck of the uterus during pregnancy are four in number.

First, we have the view held by Leischmann, or what may be called the older doctrine, namely, that the cervix, during utero-gestation, is unfolded from *above downward*, and that, at the end of pregnancy, there is no cervix to be discerned.

Second, we have the view advanced by Stoltz in 1826, and accepted by Cazeaux in 1839, namely, that the neck of the uterus, during pregnancy, is obliterated from *below upward*. In 1840 I was a pupil of Cazeaux, and almost daily had the privilege of witnessing his demonstrations of this doctrine. The opinions of Stoltz, and adopted by Cazeaux, I presented to the medical profession in 1842, when I edited Dr. Evory Kennedy's work on Obstetric Auscultation. I there gave drawings of the mechanism of the cervix uteri in the primiparæ and multiparæ, showing the difference from the older view entertained by the profession. They were the first given to the medical profession in America upon this subject, although subsequent to 1840 I had been teaching them to private classes studying the diseases of females.

Third, we have the view entertained by Litzmann, and presented in an article published in the *Edinburgh Journal* for April, 1877. This writer believes that shortening of the cervix takes place, but thinks he has demonstrated that in multiparæ the change is from *below upward*, while in primiparæ the process goes on from *above downward*. Of this view I will speak a little more fully hereafter.

The *fourth* is the view held by myself, namely, that no change whatever takes place in the cervix uteri from the time of conception to the time of labor, with the exception of physiological softening incident to pregnancy. So far as my observation has extended, I know of no authority which has recognized the position I have taken upon this question; and while the facts which have led me to the adoption of this doctrine are so plain and so easily demonstrated, and have been repeatedly demonstrated, not only to private pupils, but to large classes, both in Bellevue and in Charity hospitals, I am perfectly unwilling that they should pass away without recognition. I do not claim this recognition as an individual solely, but I do maintain that what has been done in this country in way of new investigations in this department should be credited to American obstetrics.

As early as 1851 I recognized that the teachings of my former preceptor upon this subject were at variance with the actual facts in the case; that his theory was no more correct than the older one; and that both brought us to the same conclusion, namely, that at the termination of pregnancy the cervix uteri is obliterated.

The views held by Stoltz and Cazeaux, as well as those advocated by Leischmann and Litzmann, have for their basis demonstrations made by touch only, while the doctrine which I present has its foundation on ocular demonstration and post-mortem examination.

In 1852 I began a series of investigations with reference to this question, and took measurements of the cervix while the woman was placed in various positions, such as standing, lying upon the back, and in the genu-pectoral position of the present time. In 1862 I read a paper before the New York Academy of Medicine, and published it in the June number of the *American Medical Times*, of this city, in which my views regarding non-shortening of the supra- and infra-vaginal portions of the cervix uteri, up to the complete termination of pregnancy and the first stage of labor, were stated under ten propositions. At that time I exhibited post-mortem specimens at full term, as well as diagrams illustrating my views.

From the investigations which I had made at various periods in pregnancy, at full term, in the first stage of labor, and from post-mortem examinations made upon the bodies of women who had died—without disease of the uterus—before, at the commencement of, and after labor, I reached the conclusion that the cervix uteri, during utero-gestation, does not undergo any shortening or effacement of the supra- and infra-vaginal portions, but retains its entire length, and in many cases is increased in length. It only becomes dilated at the commencement of labor, and serves simply as a channel between the body of the uterus and the vagina. This dilatation is accomplished through the combined operation of the softened condition of the neck and the pressure incident to the descent of the child's head: the pressure being caused by the contractions of the uterus, the dilatation first commencing at the internal os. When this expansion has been commenced, it slowly passes to the os externum, and the cervix, in that manner, is gradually unfolded to a limit sufficient to permit of the passage of the child's head, lengthened from one and a half to three inches. There is no more perfect and practical illustration of how this is effected than the gradual expansion of the anus of the horse during an evacuation, and the contraction which ensues after the evacuation has taken place.

The expansion of the cervical canal by the head of the child is not effected in the manner described by Matthews Duncan—the body of the uterus pulling upon the cervix and vagina very much as the arms pull on the leg of a boot while the foot is being pushed into and through it. We might as well say that the vagina or the perineum is pulled back as the child rides over it, while it is well known that it merely recedes and contracts as soon as the head is born.

In 1859, seventeen years after I edited Kennedy's work, Duncan, who speaks authoritatively upon this subject, published a paper in the *Edinburgh Medical Journal* for March, on the changes in the cervix uteri during pregnancy. In that paper he endeavors to dispel the errors which, as he claims, Stoltz had the credit of first assaulting, and adopts, with some modification, the views entertained by Stoltz and Cazeaux. He argues that the older view has no status whatever, and that it is a delusion, and claims that the doctrine of Stoltz and Cazeaux is the only one which can be sustained by reliable demonstration. He illustrates his views with actual anatomical dissections (which are outlines of diagrams taken from Coste, Favre, Hunter, and one of his own at eight months), so as to make it imperative on obstetricians to accept them implicitly, or disprove them by other dissections carefully made.

In discussing the subject, Duncan says: "I intentionally omit the latter days of the ninth month of pregnancy, as silent and painless labor is often really going on." "I mean that contractions of the uterus, usually without pain, are effecting the complete obliteration of the cervical canal."

He is, therefore, a firm believer in the views of Cazeaux, my preceptor in 1840.

My article appeared in 1862, three years after Duncan had published his essay.

In 1863 Duncan published a second paper upon this subject, in which he says that modern investigations have no standing; that the views of Stoltz and Cazeaux are incorrect, and not modern, but that the credit of their discovery must be given to Weitbrecht, a Russian anatomist, who wrote in the year 1750. He refers, in this paper, to a dissection of the uterus of a woman seven months in pregnancy. Duncan himself gives a representation of a morbid specimen at eight months. Neither of the gentlemen present any specimen illustrating the condition present at nine months or at the tenth month of pregnancy. Receding from his former endorsement of the views of Stoltz and Cazeaux, I do not perceive how he has proved that they are preceded by Weitbrecht's discovery or his own. If Duncan means to say, by these specimens, that there is no change in the cervix uteri during gestation, he fails utterly to do so. He should have a specimen at full term, inasmuch as the important question at the present day is, does the cervix uteri maintain its perfect integrity up to the completion of pregnancy, or does it become obliterated in the manner Duncan pretended when he endorsed the views of Stoltz and Cazeaux? That he still believes in the views of Stoltz and Cazeaux is evident, as he has stated in his paper published in 1873, in the *Edinburgh Medical Journal*, "that a process of silent and painless labor is going on for some hours or *days* before the supervention of active painful labor."

In the April number of the same journal for 1877, Angus McDonald, of Edinburgh, presents the views of Litzmann, and in connection with those he gives the description of a morbid specimen, presented to the Obstetrical Society, and removed from a patient who died suddenly at the commencement of labor, and in which no change in the cervix uteri was observed.

The views held by the Vienna school, as illustrated by drawings—which, by the courtesy of those who have been there, I have been permitted to examine, and the same illustrations are seen in Cazeaux—lead us to precisely the same conclusion—namely, that at the termination of pregnancy there is no cervix remaining.

It will readily be seen from this brief review, that the views which I entertain regarding changes affecting the cervix uteri during pregnancy are entirely at variance with all which have been published, and more generally accepted; but their correctness or incorrectness can be so easily demonstrated that I believe them to be worthy of consideration. Some of the German journals have accredited this doctrine to myself, and I have also learned that that view is taught by Depaul, of France.

The reports of post-mortems made by Duncan and others, and having a bearing on this subject, have been from single cases: one case at seven months, another at eight months, etc. I have been exceedingly fortunate through my own practice, and by favors from my friends, in seeing not less than twenty-five post-mortem examinations in cases in which death took place during the eighth and ninth months of pregnancy. Of these sixteen were at term, some were at the commencement of labor, and some were in the first stage of labor. In all the instances, however, whether at eight or nine months, it has been found that the cervix has remained of the same length from conception until labor. In some cases the cervix becomes lengthened, and such lengthening is not due solely to labor, but to an increase which takes place physiologically before labor commences.

Of these twenty-five cases, the cervix measured in 10 from 2 to 2¾ inches; in 11 from ¼ to 2 inches; and in 4 from ¾ to 1 inch.

Neither Weitbrecht nor Duncan, who adhered to the Russian anatomist's views so tenaciously, has given any representation of the cervix at the *end* of pregnancy. Eight months is as far as Duncan has advanced, and Weitbrecht made one dissection of a uterus at seven months. How the behavior of the cervix uteri at full term can be inferred from observa-

tions made one or two months previous to labor, I am unable to understand. If we are merely to theorize regarding what occurs in the cervix during the latter months of pregnancy, then neither Weitbrecht nor Duncan has any claims as a discoverer.

Litzmann made his examinations with the finger, and he has reached the conclusion that the cervix becomes obliterated, not only in a different manner in the primiparæ and multiparæ, but that its complete disappearance occurs sooner in the former than in the latter, because of the greater tension present in the wall of the uterus. The gravity of the child is also recognized as an element in this process.

I now return to Litzmann's position. He entertains the same view as Stoltz and Cazeaux, as he holds that the cervix uteri retains its integrity until ten days or a fortnight before labor.

Out of 81 cases investigated from the 36th to the 40th week—

There were 35 primiparæ,
" 46 multiparæ.

The cervical canal was in the primiparæ, *as a general rule*, markedly shortened. It measured not over $\frac{1}{5}$ to $\frac{2}{5}$ inch; in 5 cases it measured from $1\frac{1}{5}$ to $1\frac{2}{5}$ inches.

In multiparæ the tendency was to greater closeness of the inner os than in primiparæ, while the external was wide open.

In primiparæ, 60 per cent. were shortened.
" multiparæ, 40 " "

Litzmann, therefore, seems to show that in primiparæ the older view of Baudelocque, Rhamsbotham, and Leischmann prevails, while in the multiparæ the views of Stoltz and Cazeaux are demonstrated.

But the mere touch is by no means sufficient to enable us to decide accurately what changes, if any, take place in the cervix during pregnancy, during labor, or after labor.

If the woman is placed in the genu-pectoral position, and a large cylindrical speculum introduced, it will be found that the length of the cervix can be measured with the greatest facility by means of a sound introduced when the head presents, with a ring attached to the sound, and pushed down to the os tincæ.

Through the speculum also it can be seen whether any changes have affected the supra- or the infra-vaginal portions of the cervix. If a multiparous woman is examined during labor—the vagina usually being sufficiently capacious to admit a speculum three or three and a half inches in diameter—a full view can be obtained regarding the appearance of the cervix before, during, and after the occurrence of a labor-pain. It will be seen that during a labor-pain the cervix becomes entirely obliterated, and as the head recedes after the cessation of the pain, the neck of the uterus will present the same appearance as if no labor was taking place. These then are the views which I entertain regarding the question of changes which occur in the cervix uteri during utero-gestation—namely, that there is no change whatever in the neck of the uterus from the time of conception up to the close of pregnancy, except softening, which varies very greatly in degree in different cases.

If there is ascent of the uterus with an anteflexed condition of the body, then there will be a lengthening of the intermediate part of the cervix; that portion which is situated between the body of the uterus and its cervix. In certain cases which fell under my observation at Charity Hospital, the impregnated uterus at three or four months measured from ten to twelve inches. I felt quite positive that my sound did not pass through the tissue of the organ, nor into the Fallopian tube, and there was nothing by which we could say that pregnancy existed. Yet pregnancy was present, and after labor had occurred the uterus measured only three and a half inches.

How was so much lengthening to be accounted for? It was not in the gland nor in the cervix, but was consequent upon a physiological softening, and the ductility of the supra-vaginal portion, or that portion of the organ which is between the body and cervix.

If there is descent of the head into the cavity when there is amplitude of the pelvis, there will be shortening of the cervix consequent upon the weight of the child, and eversion will in this case be manifest, but more especially in multiparæ than in primiparæ; it will occur, however, in some cases in the primiparæ. The eversion will not then be recognized by touch; by which it will be supposed that the cervix is shortened. But when the patient is placed in the genu-pectoral position, and the speculum introduced, the eversion will be restored, and the cervix will be seen presenting its natural appearance; that is, with the physiological blueness incident to pregnancy. We are not to be unmindful that the cervix proper will measure longer in some than in others, varying from three-fourths to one and a half inch.

Now, all the views mentioned admit that the cervix uteri continues to have its full length up to within ten days or two weeks of the termination of pregnancy, and those who hold to views differing with my own admit that the cervical canal is not *obliterated until that time*. Angus McDonald, in the article already referred to, appears to entertain the idea "that there is no foundation, so far as the anatomical evidence furnished by the specimen before us extends to show, for the widespread delusion that the cervix uteri is used up during the latter months of pregnancy in the development of the lower segment of the uterus."

Whether the cervix is developed into the body of the uterus now rests mainly on the question, what changes, if any, occur affecting it within the *last two weeks* of pregnancy. Angus McDonald's case is really the only one in which post-mortem was made at the end of pregnancy or in labor, so far as I can ascertain. Duncan's cases amounts to nothing as evidence upon this point, because they were only at seven and eight months. Stoltz and Cazeaux went farther than Duncan, and admitted that the cervix was not shortened at eight and a half months; and this view Duncan still entertains, although he gives the credit to Weitbrecht as its discoverer. From the investigations made by different methods—by the touch; by the use of the speculum and measurement of the cervix by means of an instrument; with the woman on her back, or in the lateral, upright, and genu-pectoral positions, and applied in over 3,000 cases since 1840, in 2,529 since 1851, as well as from twenty-five post-mortem examinations—I hold that no change occurs in the cervix uteri during gestation. It is the same cervix in its complete integrity as to length, at the close of pregnancy, as it was at the time of conception; but it becomes modified by a physiological change in its structure preparatory to the mechanism of labor, and it is only at labor that it undergoes the expansion and lengthening commensurate with the size of the head of the child. The head of the child is driven through that channel in the same manner that it rides over the perineum, the perineum immediately receding as it passes. Or, more correctly and clearly demonstrated, as can be noticed in the anus of the horse when he dungs, the cervix uteri recedes in like manner and becomes closed, although not so firm as before labor.

Original Communications.

CROUPOUS LARYNGITIS AND DIPHTHERITIC LARYNGITIS.

By J. LEWIS SMITH, M.D.,

NEW YORK.

Prof. Steiner, of the Francis Joseph Hospital of Prague, writes: "The attempt to distinguish croup and diphtheria as two entirely distinct diseases has been unsuccessful, both from an anatomical and from a clinical standpoint; indeed, there are many good reasons for supposing that these two affections are only varieties and modifications of one and the same process, which, in consequence of special influences and collateral causes as yet imperfectly understood, makes its appearance at one time as croup, at another as diphtheria." (Art. Croup, in "Ziemssen's Encycl.") Since many physicians appear to hold the same belief with Steiner, and others express doubt as to the relationship of the above affections, I shall briefly state certain facts, which, in my opinion, substantiate the following proposition:

Croupous laryngitis and diphtheritic laryngitis, however closely their anatomical characters may approximate each other in certain cases, are totally distinct maladies.

First.—Their duality appears from a difference in their causes—inflammations of the respiratory apparatus, whatever the exact part affected, ordinarily result from the same cause. This cause is somewhat vaguely expressed by the term "taking cold." Croupous laryngitis is not an exception to the rule. It occurs most frequently in the cold and changeable months, and in children who are most exposed to cool winds and changeable temperature. Thus Steiner, speaking of this disease, says: "It has been found to be most prevalent during moist, cold, changeable weather," and he agrees with Hirsch that it "prevails especially in a moist, cold climate, in narrow valleys, swept by cutting winds, on plains exposed to cold winds, and in localities where the temperatures are low, or violent changes occur." There are probably predisposing causes of croup in many instances, existing in the individual, but observations fully justify the belief that the exciting cause is as stated above. The cause of diphtheritic laryngitis is quite different, namely, a *materies morbi*, which operates independently of thermal changes in the atmosphere. The condition required is the presence and reception into the system of the diphtheritic poison. Hence, the number of cases of diphtheritic laryngitis is in proportion to the prevalence of diphtheria, and if diphtheria is epidemic during the months of mild and agreeable temperature, and absent during the months of cold and changeable temperature, this inflammation occurs only in the former period. Thermal atmospheric changes can only be a cause of diphtheritic laryngitis in this way, that diphtheria occurring in an individual is more apt to produce the characteristic inflammation upon those mucous surfaces which are already the seat of catarrh, than upon such surfaces as are in the normal state; and cold and changeable weather is the common cause of catarrhs.

Second.—Croupous laryngitis occurs upon all parts of the earth's surface, though it is said to be more common in high latitudes than in tropical regions, as we would suppose from the nature of its cause. On the other hand, diphtheritic laryngitis obviously occurs only in those localities where diphtheria prevails. There are many towns in the United States in which diphtheria has not yet occurred, and of course diphtheritic laryngitis has not; but physicians in these localities meet from time to time isolated cases of obstructive laryngitis occurring in children, which show upon the fauces spots or patches of pellicular exudation, and a considerable proportion of which prove fatal, and which it is impossible to regard as anything else but true croup. Thus, an intelligent physician, having had a large practice of twenty years in Central New York (Onondaga county), has recently informed me that he has met, in the average, perhaps three such cases in the year, while the towns in which his practice lies have not yet been visited by diphtheria.

Third.—There are the supposed anatomical differences, which pathologists of world-wide renown have insisted on—namely, that the croupous pellicle lies upon the surface of the larynx, and does not penetrate it, while the diphtheritic exudation penetrates the mucous membrane of the larynx. I am not prepared to state to what extent this distinction holds true as regards croup, but I know that the diphtheritic pellicle does penetrate the mucous membrane of the larynx, while it lies upon, but does not penetrate that of the trachea and bronchial tubes.

Fourth.—The highest authorities in pathological histology, as Rokitansky, state that croupous inflammation may occur upon all the mucous surfaces, but that it is more common in the respiratory tract than elsewhere. And it is to be observed that Rokitansky made this remark after observing 30,000 dissections in Vienna, where diphtheria had not yet appeared. Now it seems to me unreasonable to deny this statement, and to regard those isolated cases which have long been known under the name croup, and which occur in localities that have not yet been visited by epidemics of diphtheria, as a form of diphtheritic inflammation, when we admit that an inflammation, occurring farther down the respiratory tract, and which appears to have similar anatomical characters, is croupous and not diphtheritic. I refer to croupous bronchitis and croupous pneumonia.

Fifth.—Croupous laryngitis is neither epidemic nor contagious. The present senior physicians of New York, the earlier part of whose practice extended over a period when there was no diphtheria in this city, and physicians in those interior towns in which diphtheria has not yet occurred, bear uniform or nearly uniform testimony to this fact, as I have ascertained by inquiry. On the other hand, diphtheritic laryngitis, as every one knows, is simply one manifestation of an epidemic and highly contagious malady. During the last two and a half years I was enabled to collect the records of twenty-six cases of membranous laryngitis occurring in family practice. Most of these cases were in my own practice, but a few of them I saw in consultation, and as they occurred during the period when there was a severe and protracted epidemic of diphtheria, they were doubtless mainly, if not entirely diphtheritic. In twelve, at least, of them, the evidence of contagiousness was clear and positive, from the occurrence of diphtheria in children who associated with them. Of the remaining fourteen cases, a few were seen only once or twice in consultation, and whether the diphtheria extended to others I did not therefore learn; in a few instances those affected with the laryngitis were the only children in the families, while in the remaining small number it seemed probable that the disease was produced by local insanitary causes, and it did not extend to others, so far as known. There may have been cases of croupous lar-

yngitis included in these last, but probably not more than one or two, if any.

The above facts seem to me to establish the duality of croupous laryngitis and diphtheritic laryngitis, as firmly as most other doctrines in medicine.

CLINICAL NOTES OF CASES OF NEURALGIA IN CONNECTION WITH TROUBLES OF THE ACCOMMODATION OF THE EYE.

By GEO. T. STEVENS, M.D.,

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It is my purpose to present a few typical cases of neuralgia as associated with troubles of accommodation of the eye, from a clinical point of view. I may premise that the cases included in this report are all those of habitual neuralgia, which had, at the time of examination, been of very considerable duration—generally many years—the paroxysms occurring from three or four times a year to once in a week or two. They were all cases of well-marked neuralgic character, and have been distinguished by the sudden accession of the paroxysms, the intensity of the pain, and its localization with respect to the distribution of particular nerves.

Neither of the cases reported has been of slight importance, but in every instance the patient has been unfitted for the ordinary duties of life, and usually forced to take to his or her bed during the continuance of the paroxysms.

In some of the cases, while there is evidence of a family tendency to neurotic troubles, no opportunity has been afforded for extending the observations much beyond the individual cases reported. In the others of the series the family tendency is well-marked, and treatment has been extended to a sufficient number to render it highly probable that in these families the neurotic tendency depends upon the form of the eye.

Delia H., aged about 21, consulted me February 11, 1876, on account of an attack of trifacial neuralgia of great intensity, and which at the time of her application to me had continued, with only slight remissions, for three months. She declared that she did not believe that she had been free from pain while awake during that time, and she had been able to obtain but little sleep. By the advice of friends she had concluded to submit to the extraction of her teeth, although they were all sound, in the hope of obtaining relief; but a more conservative friend induced her to consult me before the sacrifice was made. She informed me that she had been a sufferer from neuralgia as long as she could remember anything; that at times she would scarcely more than recover from one attack before another would supervene. The pain was usually in the region supplied by the trifacial nerve, sometimes on one side and sometimes on the other, but usually confined to the right side. The skin was extremely sensitive, and even the pressure of a comb in her hair was at times intolerable.

She informed me that her mother, like herself, had been for many years a sufferer from intense neuralgia.

She had never until quite recently experienced any trouble with her eyes, but now found that she could not see well at evening. She had never had pain in the eyes.

I found that she could only read Snellen 200 at 20 feet with either eye without the assistance of a glass, but that with cylinder + 15 axis vertical she could read Snellen 100 at same distance. In other words, sight was increased two-fold. She was supplied with cylindrical glasses as indicated, which she wore and soon began to improve.

February 14, 1877, one year after the first interview, she called upon me to report her condition. She had rapidly recovered from the attack above described, and had not during the year suffered another. She had never known a similar freedom from attacks since her earliest recollections, and did not believe that since childhood she had before known a period of two months to pass without a severe attack. Her general health has also greatly improved since she has worn her glasses.

Mrs. B., aged 40, consulted me in September, 1876, on account of a suppurative inflammation of the lachrymal sac. While affording such surgical relief as the case demanded, I learned the following history: For twelve years she had suffered greatly from headaches, which were for the most part located through the temples. These occurred every two or three weeks, and sometimes more frequently, each attack lasting from one to four days, during which she was invariably forced to spend the most of her time in bed. The frequency and severity of the attacks steadily increased, until three years ago they assumed a decidedly neuralgic character. The pains were at times in the course of the distribution of the trigeminus, and at other times in the arm, extending from the shoulder down the outer and posterior portion to the elbow. Some of the most severe paroxysms occurred under the lower point of the right shoulder-blade—a point which at the time of examination was extremely sensitive. So severe and continuous were these pains that during the winter next preceding her visits to me, and the one previous to that, she had been constantly under the immediate care of her family physician. Although less a martyr to her neuralgia in summer than in winter, she was rarely free from it.

Her daughter, aged 14, has been a victim of severe and habitual headaches, especially severe after work at school. Confusion of sight and intense pain through the head have been the ordinary result of reading even for a few minutes.

I found Mrs. B. to have an astigmatism corrected by a + 42 cylinder, which she procured and wore. The relief to her head was almost immediate, and the pains in the shoulders, back of neck and under shoulder-blades quickly disappeared. She has now used her glasses eleven months, during which time she has not suffered from her old complaint, has been entirely free from neuralgia, except a few days of intercostal pain, summer and winter. If her glasses are laid aside for two or three hours during the day she experiences some headache, which, however, vanishes when the glasses are restored to duty. The daughter above mentioned has also found relief from her headaches by the use of correcting glasses.

The following history well illustrates the influence of the ciliary nerves in a case of acute neuralgia.

James McE., aged 28, consulted me April 26, 1877, while suffering from intense supra-orbital neuralgia. The eyelids somewhat red and swollen, the tears streaming down his face, and the fiery mark of a large mustard-plaster on the forehead above the eye, all served to make up a picture of suffering rarely to be met with. He informed me that nine years previously he had suffered the amputation of an arm, the result of an injury, and that during his recovery from the amputation he became greatly exhausted. While in this exhausted condition he suffered his first attack of neuralgia. Since then he has had two or more such attacks annually, each lasting from four to six weeks,

except in a single instance, in which the attack yielded in two weeks.

The pain occupies the region of distribution of the supra-orbital nerve. It leaves him if he can get asleep, but returns the moment he awakes. During the period of the attack he is absolutely unfitted for work, and is generally confined to his bed day and night until it passes over. Has submitted to a variety of treatments, but has experienced little relief from any.

He has strabismus, the right eye having a decided cast. Sight of that eye, $\frac{5}{20}$. Sight of left, $\frac{20}{20}$. In left eye there is a manifest hypermetropia of $\frac{1}{36}$. [I afterwards found total hypermetropia $\frac{1}{14}$.]

My first impulse was to inject morphia beneath the skin of the painful part; my second, to relieve the ciliary muscle of its tension. I accordingly dropped a few drops of solution of atropia into the left eye, and directed him to call again in two hours. He did so; the pain had entirely subsided, and did not return. Nearly two months later, however, he presented himself with a new attack. The first application of the atropia only partially relieved him, but the pain yielded to a second application made the following morning.

Mrs. M. H., aged 44, was for ten years a sufferer from neuralgia, with extreme nervous irritability and mental depression. The neuralgic pains, which were for the most part located in the vicinity of the seventh cervical vertebra, extending upward towards the hair, and at times towards and into the shoulders or down the back, were of a burning, continuous, and extremely violent character. Accompanying these pains was an habitual cutaneous anæsthesia of the hands and arms.

Under the influence of continuous pain her general health failed, and she became a confirmed invalid. Counter-irritation by means of fly-blisters, mustard-paste, plasters of various kinds, and stimulating embrocations, were freely resorted to, tonic and narcotic remedies were persistently used, and the galvanic battery was employed for a considerable length of time. With these, the benefits of travel, of diversion of mind, and such other appropriate regimen as her physicians suggested, were faithfully tried. None of these remedies were productive of more than very slight temporary relief.

I saw her in November, 1876, and found hypermetropia $\frac{1}{24}$, for which glasses were prescribed.

About six weeks later she wrote me an enthusiastic letter describing the great improvement in her health, which she ascribed to the use of her glasses, and expressing her surprise that any such result should follow a relief to her eyes. "I only knew," she said, "that the origin of my difficulties was not in my spine, for no local applications benefited me, but rather made me worse. The difference in the condition of my nerves, then and now, is just wonderful." I have recently received another letter from this lady, in which she informs me that still, after nine months, the relief continues.

Mrs. A. was first seen by me May 19, 1876. She was thirty-five years of age, and married. During early life she had chorea, which, with varying severity, lasted from the age of fourteen until she was seventeen. For several years after her recovery from chorea she was a sufferer from headache, and during the last four years from intense neuralgia alternating between the trifacial nerves and the nerves distributed to the back of the neck, shoulder, and lower part of shoulder-blade. She has known little freedom from pain in waking hours for several years, but the paroxysms occur with great intensity about once a month. Her father has been subject to sick headaches for more than thirty years, and her brother, who is a physician, is subject to frequent neuralgic attacks. She has a son aged fourteen, who suffers greatly from sick headaches.

Mrs. A. has compound hypermetropic astigmatism in each eye. She did not procure glasses for the correction of this evil until November last. Then her neuralgic troubles rapidly vanished, and in a few weeks she declared herself cured. She has enjoyed up to this time almost complete immunity from the affection which gave her so much trouble for many years, and speaks in terms of greatest enthusiasm to friends of her unexpected cure.

Dr. M., brother of this lady, has been subject to repeated attacks of supra-orbital neuralgia. He has in right eye hypermetropic astigmatism, while the left eye is normal in its refraction. He commenced the use of a cylinder for the right eye in November last, since which time he has enjoyed a freedom from neuralgia such as he has not enjoyed before in ten years past.

Mrs. C. E. A. visited me in company with her son Ned, who had poor sight and pain after reading, and who had hypermetropia. In course of conversation with the mother I learned the following particulars respecting herself.

Since childhood she had been a victim of neuralgia. In early school-days she had often been forced to leave school and seek her bed on account of severe attacks, and the neuralgic habit had continued with her up to this time.

Attacks, of late, had been most frequently brought on by fatigue or exhaustion from active mental or physical exertion. They had usually commenced with a feeling of great depression and weariness, to which succeeded intense pain, often located at the lower point of the right shoulder-blade, but of late more frequently over the left eye. The pain, sometimes accompanied by nausea, had in these attacks been of great intensity, and had in almost every instance forced her to keep her room and her bed for three or four days together, during which time the admission of light or noise to the apartment was a source of torture.

The paroxysms had occurred about once a month, though not at stated intervals.

Mrs. A. is a lady of much more than ordinary mental and physical activity. Her son Ned, as before stated, is hypermetropic, and she has another son, eighteen years of age, who is subject to sick headaches. Her mother and her grandmother suffered greatly from nervous troubles.

Mrs. A. *had never had trouble from her eyes*, and her attention was drawn to them as a source of her difficulty during this conversation. I found, after using atropia, hypermetropia $\frac{1}{30}$, and prescribed glasses of 42 inches focus, encouraging her to use them in the hope of obtaining relief from her neuralgia.

Five months after this Mrs. A. called to express her delight at the success of her experiment. She had worn her glasses habitually since I had seen her before, and had not experienced a single attack of neuralgia. Better than all, she had scarcely known the sense of exhaustion and depression which she had formerly experienced at the close of every day. From this, which had been of daily occurrence, she had been entirely free, except that it had occurred about once a month in the place of the former neuralgic attack.

The following case, which is of much interest in this connection, I transcribe from the selections of a

late number of *Annales d'Oculistique* (Mars–Avril, 1877).

Ragazzoni, Surgeon-in-chief of the Hospital of Bergamo (Italy), reports the following: *Acute glaucoma with sciatica—Iridectomy—Cure of the two affections.*

The case was that of a woman aged forty-four years, who had been amaurotic in the left eye during two years, the result of acute glaucoma. In the right eye she now had all the symptoms of inflammatory glaucoma, in addition to which there occurred about the same time with the glaucoma, an intense sciatica of the same side. There were well marked alternations of the ciliary pains and of those of the thigh.

No sooner had iridectomy been practised than the sciatica ceased as if by enchantment. The eye healed with the restoration of satisfactory vision.

"The coincidence of the cure of the sciatica and of the glaucoma," remarks the *Annales d'Oculistique*, "is a singular circumstance, and one inexplicable to the author."

Upon the theory that I have advanced elsewhere,* that neuralgia even of distant nerves is very frequently dependent upon ciliary irritation, the coincidence so mysterious to the author is readily explainable.

The few cases which I have reported from my own practice are but fair illustrations of a very considerable number which I have observed during the last two years.

From very careful notes of many cases, I believe that I am fully sustained in drawing the following conclusions:

1. That among the centripetal influences which generate neuralgia, the irritability arising from a perplexity or exhaustion of nerves engaged in the function of accommodation of the eye must be regarded as by far the most frequent and important.

2. That where a family tendency to neurotic affections, including neuralgia, is found, we may generally conclude that the inherited tendency is transmitted in the form of the eye.

And 3. That many inveterate cases of chronic neuralgia, not amenable to other forms of treatment, readily yield to the simple process of relieving the eye from irritation resulting from difficult accommodation.

* *New York Medical Journal*, June, 1877, &c.

Progress of Medical Science.

Case of Ovarian Tumor in a Child.—Prof. McGraw, of Detroit, reports a case of ovarian tumor in a child twelve years of age. The enlargement of the abdomen was first noticed in May, 1876, and it rapidly increased. The patient had no pain except from distention, but had a constant diarrhœa and was short of breath. In August, 1876, the abdomen measured thirty-four inches in circumference at the navel. There was universal abdominal fluctuation, and no tumor could be made out by palpation. The patient was tapped and three gallons of bloody serum were withdrawn. Microscopical examination of the fluid revealed blood-globules, but no granular corpuscles. After tapping, the dulness on percussion became limited to the lower and central part of the abdomen, but no tumor could be mapped out by palpation. The fluid rapidly reaccumulated, and in four weeks' time the child measured thirty-six inches around the navel. On Sept 12th, the abdomen was opened and the fluid found to be largely ascitic. The tumor, which was as large as the head of a new-born child, was found lying on the vertebra. When grasped, the bloody serum which it contained spouted out of the hole previously made by the trocar. The tumor consisted of a very thin sac containing a bloody fluid. The pedicle was secured by a clamp. The patient made a good recovery without a single drawback, and is now entirely well.—*Toledo Med. and Surg. Jour.*, July, 1877.

Exsection of Hip-Joint followed by Amputation of Thigh.—This case is reported by Dr. Murbach, of Ohio. The patient, a boy, twelve years of age, had suffered for a year and a half from morbus coxarius. Several abscesses had formed, and left discharging sinuses, and it finally became evident that the patient could not support much longer the constant drain on his system. On May 4th, the operation of exsection was performed, the head and upper half of the shaft of the femur being removed. The femur was found to be diseased in its entire length, but the failing strength of the patient rendered it necessary to postpone further operative measures. After the operation the patient did well, the pulse and temperature gradually becoming normal, and the wound closing rapidly until May 30th, when he became feverish and had pain in the knee and along the course of the remaining portion of the femur. On June 2d, the limb was amputated above the bifurcation of the femoral, by the circular method, and the wound closed simply by a couple of strips of muslin brought over the stump and secured by a bandage. The patient recovered rapidly after the operation. On June 15th he got up and walked across the room on crutches, and on June 29th the stump had entirely healed up.—*Detroit Medical Journal*, September.

Structure of the Human Peritoneum Diaphragmaticum.—According to Bizzozero, the limitations of the diaphragmatic peritoneum is in some places unbroken, and does not present any openings, while in other places it is pierced with round or oval openings, that are partly grouped together in islands, partly scattered about irregularly. The islands are of different shape and size, and are composed of from ten to sixty openings, varying from four to sixteen-thousandths of a millimetre in diameter. This arrangement of the limitans is intimately connected with the distribution of the lymph-canals of the diaphragmatic peritoneum. The lumina of the superficial vessels, instead of being everywhere separated from the peritoneal cavity by an unbroken connective-tissue layer, are separated from it over extensive spaces only by a connective tissue network. Over this network the limitans is stretched in such a way that the openings in the latter, as a rule, exactly correspond to the meshes of the former. In this way, if we put the endothelial lining out of the question, an open communication is established between the lumina of the lymph-canals and the peritoneal cavity. This anatomical arrangement is most developed, not in that part of the peritoneum which covers the centrum tendineum, but in that part which covers the muscles immediately surrounding the centrum. The lymphatic network is not, it is true, so close-meshed in this situation as in the centrum tendineum, but the individual vessels are much wider, so that even with the naked eye the membrane can be seen to be reticulated. These lymph-vessels are really lymph-pools, which are covered towards the peritoneal cavity by the already mentioned connective-tissue network and the cribrose limitans.—*Centralblatt für die Med. Wissen.*, August 11th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE HIGHER MEDICAL CULTURE.

In a recent issue of the *World*, a medical gentleman of this city ventures to speak in favor of higher medical culture. We do not pretend to question his motives in so doing, but, on the part of the profession which he represents, we regret the act. With the most laudable intention of expressing the views of his brethren, he has persuaded himself to assume too heavy a responsibility. While he has our sympathy in failing to support his line of argument, if indeed any such is attempted, we cannot help wishing that he had never considered it his duty to write the letter in question at all.

As far as we can understand the writer, we believe he intends to advocate higher culture. No one objects to this, but his manner of putting it is somewhat peculiar, and leaves us in doubt as to whether he really understands his subject or not. We admit that the question of higher medical education is a great problem, and as such some little struggling is required to overcome it, but there is very little progress made when the problem has always the upper hand. For the sake of fair play, if for nothing else, we should like to see the parties in the contest a little more evenly matched. For the amusement and edification of a discriminating and impartial public, this is sometimes quite essential. We do not believe any one doubts that there should be a higher medical culture, and if we understand the writer correctly, he does not pretend to prove the contrary, but we have a lurking suspicion that he has some vague objection to new methods. The following paragraphs will no doubt clear up any doubts on this point in the minds of our readers, that the real way to succeed in medicine, as in any other "line of human effort," is "native intelligence coupled with untiring industry" (vide Smiles' "Self-Help"). Great men, it is true, get on without training, are perhaps born geniuses, but what are we to do with the large majority of young men who are anxious to study medicine? These are the very ones who are least apt to "supplement all deficiencies by ingenious contrivances and more penetrating application," but to follow their leader and swear by their professor. The colleges, far from being an advantage to these men, are considered to be detrimental. To understand the better his idea, we give it in his own words:

"I think the candid reader will agree with me that standards of discipline and prescribed methods and modes of culture are but a negative advantage, and probably do more to elevate the mediocre talent of the land into quasi dignity and supposititious influence than the lack of them tends to degrade the talent and defeat the success of the true genius. It is not, therefore, an unmitigated evil that we are considering, nor one that calls for a struggle such as would be demanded were we confronting an evil that threatened with destruction our professional principles and promises of legitimate prosperity."

"Now, the special evil that we have under contemplation, due to imperfect appreciation of the necessity of such action as will promptly elevate the standard of medical education, is one that we may find to be far less intolerable than has popularly been supposed. If any one suspects that I presume to be an apologist for evil, let it be ever so trifling in amount and mild in character, a grave mistake has been made. His judgment or my statement of views is at fault. I trust it will be seen that I recognize differences in the grades and pernicious qualities of the evils that afflict mankind, and also that I perceive the force of some reasons why the present system of obtaining medical education and of allowing the standard of acquirements to remain dwarfed has fewer disadvantages to the public and the profession than many good people imagine. An evil of weight and importance it is, and an evil of its present magnitude it will remain until the spirit of truth and honor arouses the head and heart of the profession to do that which will quench the bad and develop the good. It is, however, an evil that, for some reasons which I will endeavor to point out, is working powerfully in a direction parallel to that which craving reformers dream about and hope some time to realize in fact."

Whatever interpretation may be made of his views, we have no doubt that he means what he says, and if the subject is not made clear, it is evidently not on account of any lack of pains on his part to make it so.

Pursuing the subject still further, we are impressed with the idea that our writer is quite satisfied with the present facilities of acquiring medical education: that, in fact, our present system is a blessing in disguise. The prevailing system appears also to help the public in discriminating between the ordinary physician and the genius, and therefore is to be commended. Although this ability on the part of the public to separate the sheep from the goats may be questioned, we allow it for the sake of the argument and quote what appears to be one of the conclusions:

"If the world were still plunged in mediæval mental darkness, there would be no justice in any assumption of a superficial medical curriculum being a tolerable evil, for at best it would be a cruel imposition upon the people, and at the worst a remorseless scourge of the class who sicken."

Therefore, there seems to be no need of trying to improve our methods of teaching, of aiming at any higher standards, of taking any advantage of past experiences in medical education, as we can safely rest the matter with the public and the student. If the latter is unable to overcome the small obstacles which beset his path, he has no business to be a physician, and the discriminating public will soon find him out. Thus the evils of imperfect medical education correct themselves, and give us "plenty of room up aloft." As an incentive to look in that direction for success, we are informed that "he who seeks the professional aid of the loftiest is pretty sure to seek that which is efficient, and which will not be withheld from him;" and then, after a concluding sentence, follow the name and office address of the writer.

HOMŒOPATHIC DOINGS.

THE thirteenth annual session of the Homœopathic Medical Society of Pennsylvania has lately been holding its sessions in Philadelphia. I. C. Burgher, M.D., of Pittsburg, President of the Society, delivered the opening address upon the progress of the homœopathic profession. Some of his statements are a source of great amusement to us. It was worthy of note, he thought, that the literature of the old school was gradually becoming seasoned with the therapeutic principles of the new method. Its practice was improved by the substitution of small doses in place of large ones. As an example of the growing use of uncombined remedies, he instanced *the gelatine-coated pills*, extensively advertised in old school medical journals, *each one containing but a single drug, also the wafers containing remedies uncombined.* (The italics are our own.) Plans of treatment that had been taught for ages had been almost set aside. Three hundred regular graduates had swelled the ranks of the profession, besides *an indefinite number of recruits from the old school.*

The harmony of the proceedings was somewhat marred at one part of the session. A paper was read on "Skin Diseases and their Treatment." One physician objected strongly to the use of a certain remedy, which he declared to be allopathic in character. "I have no objection to this gentleman's criticism upon my paper," said the author, "but he also uses 'combined remedies.'" The physician angrily denied the assertion in language more forcible than decent, and for a time there was considerable unpleasantness, but it was subsequently patched up by the offering of an apology and its acceptance.

Another point worthy of reference in connection with the meeting in question, is the enactment of the following rules for persons applying for admission as medical students:

First. The candidate shall be of good moral character and unquestionable sobriety, and shall give satisfactory evidence of studious habits. *Second.* That he shall possess, or previous to commencing the actual study of medicine shall acquire, a good English education, together with a fair knowledge of mathematics, natural philosophy, and the rudiments of the Latin language. *Third.* That he shall enter into an agreement with his preceptor to attend not less than three terms of college and hospital lectures, and to devote the intervals to regular and systematic study. *Fourth.* That all our colleges should fix the requirements for graduation at such a standard as an ordinary student ought to be expected to attain by a three-term course of study, and that the final examination should extend to the practical skill of the student in all the departments where such an examination is practicable and such skill valuable to the practitioner.

We wonder whether the disciples of Hahnemann would claim that this system had been borrowed from them by our friends in Philadelphia.

ALBANY ETHICS.

THE faculty of the Albany Medical College appear to be carrying on a very brisk business in advertising its members in the different local papers. There is a deliberation about the matter which must cause the luckless practitioners outside of the College Ring to cry for mercy. In nearly every one of the Albany daily papers there are accounts of so-called wonderful operations performed by some one of the college professors at the St. Peter's Hospital. We are quite willing to believe that the college has a good faculty, that the majority of its members are men of more than ordinary ability, but we know that they do not comprise all the talent of the place. Hence, we think that the advertising dodge should not be a monopoly. Of course we cannot imagine that any of the operators are guilty of describing their own operations, for this is known to be unprofessional, yet we are at a loss to explain the curious coincidence of accounts of such operations appearing verbatim in all the papers at once. An occasional squib concerning a notable case might be excused as accidental and due to some enthusiastic admirer of the operator, but the way this thing is done in Albany burlesques the very idea of apology or excuse. Not only are cases operated upon regularly reported, but they are announced beforehand, with the name of the operator, and in some cases his method of procedure. The members of the faculty need not be told that this is a gross violation of their privileges, and an outrage upon their brethren outside the college, not only in their city, but throughout the country. The Code, which we believe is as binding upon this faculty, as upon the profession outside, is quite explicit

on this point, and we take the opportunity to quote and to apply it:

"It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician."

Reviews and Notices of Books.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE, VOL. XII. Diseases of the Brain and its Membranes. By Prof. H. NOTHNAGEL, of Jena; Prof. E HITZIG, of Zurich; Prof. F. OBERNIER, of Bonn; Prof. O. HEUBNER, of Leipsic; and Prof. G. HUGUENIN, of Zurich. Translated by HENRY R. SWANZY, M.D., of Dublin; CHARLES EMERSON, of Concord; EDWARD H. BRADFORD, M.D.; ELBRIDGE G. CUTLER, M.D.; ROBERT T. EDES, M.D.; JAMES J. PUTNAM, M.D.; FREDERICK C. SHATTUCK, M.D. and S. G. WEBBER, M.D., of Boston; and LOUIS VELDER, M.D., of Elmira. ALBERT H. BUCK, M.D., New York, Editor of American Edition. New York: William Wood & Co., 27 Great Jones Street. 1877.

As we see by the title-page, the German editor has been fortunate in securing for this volume writers whose reputations have already been made by their literary productions in the field of neurology: Nothnagel, by his investigations on vaso-motor nerves; Heubner, by his "Syphilitic Diseases of Cerebral Vessels;" Huguenin, by his "General Pathology of the Nervous System," of which the first volume has appeared; Hitzig, by his "Researches on the Brain;" and finally, Obernier, by his "Experimental Researches on the Nerves of the Uterus," and other allied studies.

The first 228 pages are taken by Nothnagel, who treats of anæmia and hyperæmia of the brain, general intracranial hemorrhage and occlusion of the arteries, veins, and capillaries. Cerebral anæmia appears to have been little understood in the past century, when excellent pathologists held the views of Kellie and Monroe, that as long as the skull remains intact, the quantity of blood is always the same. The erroneousness of such a doctrine has been shown by Donders, Robin, and others, who have found that the amount of blood is regulated by the cerebro-spinal fluid, the contents of the perivascular spaces, the thyroid gland, etc. The author shows his usual caution in stating that the positive experiments of Schiff and Goltz, pointing to the existence of nerves directly dilating the blood-vessels, do not altogether rest upon an established foundation, nor do the negative experiments of Jolly have much weight. He holds it probable, however, that such nerves do exist. It is noticeable that he agrees with Obernier in stating that sun- or heat-stroke is certainly not due to the direct influence of the sun, but to an abnormal increase in the temperature of the body—an opinion which is somewhat at variance with those that are usually held. Cerebral hemorrhage is the name he has substituted for apoplexy, a change we should now be prepared to accept; for, in fact, apoplexy denotes merely a clinical symptom. The causes of the affection are well summed up, and the two main predisposing conditions are stated to be increase of blood-tension and disease of the walls of the vessels, especially of the arteries, and chiefly in consequence of the rupture of the minute aneurisms that Charcot and Bouchard have called *miliary*. The morbid process consists in a chronic periarteritis. As for the matter of atheromatous degeneration, which has held such an important place as a cause of cerebral hemorrhage, it is thought to rarely have such a relation, and only in the arteries at the base of the brain and their branches. Atheromatous degeneration does not in itself lead to rupture, and in this connection an important point is brought into notice, viz., that rigidity of the peripheral arteries is not of importance in the diagnosis of cerebral hemorrhage. Another interesting point, borne out by the statistics of Frerichs and Dickinson, is, that the causal relation between contracted kidney and cerebral hemorrhage is not shown. He agrees with Eulenburg further, that certain forms of hypertrophy of the left ventricle may cause hemorrhage when they are associated with increase in arterial pressure. A certain class of diseases of the blood, as pernicious anæmia, may be a cause. Whether the apoplectic or plethoric habit, characterized by broad chest and shoulders, short neck, large abdomen, and rubicund complexion, is a fact of much note, he is inclined to doubt. Practically, poorly nourished and thin persons are just as apt to be attacked—and indeed, the real cause is entirely independent of such habit, being essentially a disease of the arteries. Cerebral hyperæmia is favored by the habit in question, and it is doubtless this condition which occasionally leads to hemorrhage that has been confounded with the latter. The lesion is usually in the corpus striatum, and the paralysis on the side opposite the lesion, and though cases occur, as those of Brown-Séquard and others, where the paralysis or paresis has been on the same side, they are infinitely rare. The cause of this remarkable fact in such exceptional cases is still a mystery. As for the question of the localization of hemorrhagic lesions, certain groups of symptoms point with approximate certainty to the pons, the pedunculus, the nucleus lenticularis, and the crura cerebri. In the other regions of the brain the most careful consideration will only establish a presumptive diagnosis, and sometimes not even this. The subject of the occlusion of vessels and softening, a matter that owes so much to Virchow, has been well worked up, and Nothnagel has shown a talent, which is certainly not German, for summarizing in a clear way the most important facts about these obscure matters. A short sketch is given of marantic thrombosis, which does not originate in a condition of phlebitis, but where the action of the heart is feeble, as in children under one year, in the collapse of sudden diarrhœa, and in the exhausting diseases of adults. It occurs chiefly in the longitudinal or transverse sinuses. Other thrombosis of cerebral sinuses are due to phlebitis, and the existence of a primary or idiopathic thrombosis may be a matter of grave doubt. Nothnagel certainly deserves the reputation of having handled his portion of the volume in a masterly style, and made it both palatable and digestible. Tumors of the brain, by Professor Obernier, are treated upon the anatomical basis proposed by Virchow, which, after all, seems destined to serve us for a long time to come. As a point in diagnosis, he emphasizes the fact that there is always

aphasia when the tumor is situated on the left side, in the region of the island of Reil. The diagnosis of intracranial tumors may be impossible; for the symptoms to which they give rise are for the most part those produced by other diseases of the central nerve-system. The author evidently is strongly impressed, however, with the idea that in the early stages the condition of the optic papilla, retina, and field of vision, are safe guides in making a diagnosis. According to Heubner, syphilitic growths in the nervous system do not usually occur until several years have elapsed from the time of infection, though this rule has its exceptions. Parts of the body that are preternaturally weak, or have been injured, are most liable to attack. Syphilitic diseases of the cord may be grouped under neoplasms, callus (or connective tissue formations), and softening, though the latter subdivision is questionable. Four hundred and seventy-five pages are devoted by Huguenin to inflammation of the brain and its membranes. He employs the term lepto-meningitis to avoid some of the misapprehensions which gather about acute hydrocephalus (without tuberculosis). The conditions which produce it are varied, and are: fluxions of the brain and pia, general dropsy, effusions in marasmus, special affections of the brain, venous stasis from various causes, and local obstruction to the escape of blood from the cranium. Under the heading of meningitis tuberculosa or basal meningitis or acute hydrocephalus (tuberculous), the author gives a succinct summary of the views held at present about tubercle. The rich experience of the author has enabled him to form some original views about pachymeningitis interna, in which he differs somewhat from Virchow and modern pathologists as to the way in which the membrane forms. Hitzig takes the last sixty pages of the book. His articles on Hypertrophy and Heterotopia of the Brain are chiefly interesting in a pathological point of view, as the conditions are only recognized with certainty at the autopsy; lastly, Dementia Paralytica, the final article, is pleasantly written, and gives a clear and simple description of the disease in all its phases.

In closing the volume the reader will realize that he has been presented with a very large number of new facts and original reflections served up with much careful and precise reasoning, and that an obtuse subject has been skilfully handled, and at the same time been made attractive and practical.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, Sept. 24, 1877.

Dr. John C. Peters, *President, in the Chair.*

ANALYSIS OF THE EXAMINATION OF SEVENTY-SEVEN PREGNANT WOMEN, WITH A SYNOPSIS OF THEIR LABORS.

Dr. P. Brynberg Porter read the analysis, which, in addition to the many points noted in the examinations, contained remarks relating thereto. A few items were abstracted as follows:

MENSES.

In two instances menstruation occurred once after gestation had commenced.

In one case the menses appeared three times after conception had occurred.

The earliest age at which menstruation had commenced in any of the cases was eleven years. In one case menstruation returned about six weeks after confinement, and continued regularly throughout lactation.

QUICKENING.

This occurred in all except one.

MORNING SICKNESS.

It was present in 46 cases, but in none produced sufficiently urgent symptoms to call for the induction of premature labor.

AREOLA.

It was frequently noticed not to be symmetrical in the same patient.

The secondary areola was not well developed in the blonde. Areola well marked in 68 women.

FŒTAL HEART.

The fœtal heart was heard distinctly in 72 cases; in one case no examination was made with reference to this point.

CERVIX UTERI.

The cervix was apparently long in 40 cases; 21 multiparæ and 19 primiparæ. One-half an inch in length was regarded as long. The cervix was soft in 37 cases. In 41 cases the external os was found patulous; in 15 to such an extent as to admit the finger.

URINE.

The urine was examined in 60 cases, and in only one was albumen found. In that case there was no œdema whatever, yet convulsions set in at the commencement of labor.

In another case, the patient suffered severely from dyspeptic symptoms and had marked œdema, yet not a trace of albumen could be found in the urine. After labor had commenced, the urine was found to contain a large quantity of albumen. A short time after labor her general condition seemed to be good, but it was not long before unfavorable symptoms were developed and the woman died. The kidneys were found in the advanced stage of nephritis.

KYESTEINE.

This was noticed in almost every case.

PREVENTION OF POST-PARTUM HEMORRHAGE.

This was incidentally referred to in connection with the note that such hemorrhage occurred in seven cases not under the doctor's care. There were three factors in Dr. Porter's method of prevention:

1. The exhibition of ergot just before the birth of the child, and immediately after the delivery of the placenta.

2. Introduction of the fingers into the uterus, perhaps entire hand, to remove all clots and stimulate the organ to contract.

No ill results had been seen to follow such practice.

3. External manipulation over uterine tumor until the binder is applied.

The paper being before the Society for discussion, Dr. Isaac E. Taylor remarked, with reference to the occurrence of pigmentation in various parts of the body of the pregnant woman, that it was once looked upon as being a very important sign of pregnancy; so much so that Dr. Wm. Hunter felt willing to decide whether a woman was pregnant or not from this symptom alone. That, however, was an error. For,

many cases of pregnancy occurred in which there was no discoloration of the areola of the nipple, and pigmentation was not seen elsewhere upon the body. What was the cause of the pigmentation when present?

Dr. Taylor was of the opinion that it depended upon some disturbance of the supra-renal capsule incident to pregnancy.

Regarding the changes which occur in the cervix uteri during gestation, Dr. Taylor's remarks can be found on page 644.

A MEMBER remarked that he had made observations with reference to the number of fœtal heart-beats to the minute, and the sex of the child, in 60 cases. In almost every case he had been able to predict correctly concerning the sex of the child by regarding it as a male if the heart-beats numbered less than 130, and a female if they numbered more than 130 to the minute.

DR. WEBER related the history of an interesting case of labor, after which the Society proceeded to the nomination of officers.

New Instruments.

A NEW TENACULUM-NEEDLE, NEW WIRE-TWISTER, AND A NEW MATERIAL FOR SUTURES.

BY C. J. CLEBORNE, M.D.,

SURGEON U. S. NAVY.

THE instrument figured in the accompanying wood-cut was suggested by the difficulty sometimes experienced in manipulating the ordinary surgeon's needle, especially when insecurely held, and imperfectly directed by the *porte-aiguille*. The canula-needles of Eve of Nashville, Simpson of Edinburgh, Startin and others, as well as the modified instruments of Tiemann and Bryant, are all more or less objectionable. Tiemann's arrangement is very ingenious, but the wire is apt to kink, the needle to bend, and the whole apparatus is too bulky and inconvenient for general use. The same faults are found in all other needles formed of *tubing* simply soldered on a shoulder—weak points—unless made of heavy material. It occurred to me to utilize the tenaculum of the pocket-case, by hollowing its *solid* shaft to form a *firmer* needle, and thus combine two instruments in one. The advantages of this plan are obvious, as the most delicate tubular needle can now be made of sufficient strength, and patients may be saved the painful and tedious process of dragging wire, silk, or thread through the tissues. It can be made of any size, curve and calibre to suit horse-hair, cat-gut, double wire or silk, and will be found useful in operations upon hemorrhoids, vesico-vaginal fistulæ, the mouth and perineum. The difficulty in passing silk or thread through canula-needles may readily be obviated by partially untwisting the end of the suture, dipping it into *collodion*, and then rapidly re-twisting it taut between the fore-finger and thumb. This does not occupy more than a few seconds, and when dry, the end is sufficiently stiff to pass through the needle-tube. A still better plan is to harden the end by sulphuric acid and ammonia, and ligatures thus prepared may be obtained from Tiemann.

I have used with great satisfaction sutures made of the finely finished three-ply thread known as "Hard-ash." It is very strong, creates less irritation than silk, does not need waxing, and is particularly well fitted for tubular needles. Like other vegetable fibre, it may be *cellulosed* by dipping for a few seconds into a mixture of sulphuric acid and water (two volumes of the former to four of the latter), then washing and neutralizing the acid with dilute ammonia. The texture is at once changed into an unalterable material analogous to animal membrane, which increases in toughness and flexibility by moisture, and is superior to catgut or other animal ligature.

The wire-twisters of Dawson and of Coghill cause some delay in rapid operations. I have therefore devised a more simple form.

The wood-cut represents an instrument which combines: a tenaculum A, a curved needle (for wire or silk) B, (which may also be used as a staphylorraphy needle and sutured hook), a straight needle for wire or silk D (suitable also for exploring), and a small figure-of-eight-wire-twister C, which can be quickly and easily applied. Silver or other suture-wire, if run through the tenaculum needle, will be evenly and neatly coiled.

The combined instrument (which fits the ordinary pocket-case) is made by Messrs. George Tiemann & Co., of New York, to whom I am indebted for the compact and handsome style in which it is manufactured.

A NEW DEVICE FOR SPREADING PLASTER-OF-PARIS AND OTHER SUBSTANCES UPON BANDAGES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR: In the preparation of permanent casings, by what we will call the old method (by hand), the time required, as well as the dirt and inconvenience arising therefrom, has, no doubt, to a great extent precluded their use.

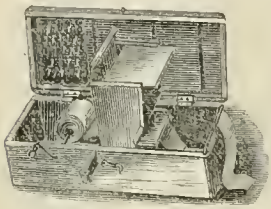
Dr. Frank H. Hamilton remarked to a delegate at the Chicago Convention (Dr. Wm. A. Bird), "that one of the greatest drawbacks to the use of the *plaster-of-paris bandage* in the treatment of fractures, was the length of time occupied in preparing them." This is indeed true of plasters and all other substances used for the purpose. Say, for instance, we have a fractured femur, nine six-yard plaster bandages are required to form a complete and firm casing. The most expert manipulator of this substance finds it impossible to prepare a single six-yard bandage in less time than fifteen or twenty minutes, and after it is prepared the plaster is unevenly applied; besides, requiring an expert to spread the material thus imperfectly.

The failures recorded, of the plaster not hardening properly, may be traced, I venture to assert, to imperfect preparation (by hand), the water of crystallization being unequally distributed, in consequence of irregularities in the layer of plaster.

Besides the great length of time required to simply apply the plaster to the cloth, the dirt is a matter of

some importance. The plaster, being highly calcined, flies over everything if only slightly agitated—an objection as formidable as the time occupied in preparation.

About six months ago I conceived the idea of overcoming—if possible—this obstacle to the great modern acquisition to surgery, and to that end I set about constructing an apparatus, which has since been received with marked favor by several eminent surgeons north and south. I feel confident that the objections to plaster-of-paris, as well as to other substances as applied simply to the preparation of the bandages, are entirely removed by this device, and that permanent castings, by its introduction, are likely to gain a still greater degree of popularity.



The apparatus is constructed to simply roll bandages, or, if desired, to apply silicate of soda, dextrine, or plaster, simultaneously with the winding process. The accompanying cut shows the apparatus in position—ready for use, and will convey a much better idea than can possibly be done by an attempt at description.

It is inclosed in a very neat polished black-walnut box, with brass fittings, confines the material to the box, therefore creating no dirt. Eight minutes is all that is required to prepare nine six-yard bandages of ordinary width; formerly, by hand, two and a half hours were occupied in accomplishing the same object. The only knowledge necessary, in order to work it successfully, is to know how to turn a crank, which the office boy can do as well as the surgeon. As the cost of instruments is a matter to be taken into account—especially these hard times—as a matter of information to my fellow-practitioners, I will state that the entire cost of the device will not exceed $5.00, which places it within the reach of all practitioners and hospitals. Without intending to overrate one's own invention, I must quote the words of my distinguished contemporary, Dr. J. L. Little, of New York, "that it ought to and will come into general use."

Respectfully yours,

FRANK GREENE, M D.

COLUMBIA, S. C.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending October 6, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Sept. 29.....	0	31	48	1	4	53	0
Oct. 6	1	25	42	3	8	65	0

DR. W. R. WHITEHEAD, formerly of this city, and lately of Denver, Col., has removed to Paris, France, to practise in that city. Dr. W. is a graduate of the University of Paris.

OFFICE THIEVING AND PROFESSIONAL FRAUDS.—The following letter is sent to us by a physician of this city:

"Should you have space to spare in your columns, I would like to take advantage of it to warn physicians of New York and elsewhere against a peripatetic fraud, who endeavors, under the name of Dr. T. W. Flanner, to obtain money upon the pretext that while travelling through the city he has been the victim of pickpockets. He merely wants a few dollars to reach friends in Baltimore or Washington, on his way to his home in Springfield, Mo. Perhaps he varies the name and the story as he enters upon new fields of operation. It may be wholly superfluous and unnecessary for me to remind you that Dr. T. W. Flanner, of Springfield, Mo., is a gentleman of good standing in business, professional, and private life, and this unwarranted assumption of his name and title is as annoying to him as it is beyond his control. The unfortunate "victim of pickpockets"—himself one of their guild—is of fine appearance, gentlemanly manners, apparently about fifty years of age, and uses the Quaker's "thee" and "thou." With the cruel hope that this may be sufficient to ruin his business, I remain,

"MULCTED."

THE THIRD ANNUAL MEETING of the Indiana, Illinois and Kentucky Tri-State Medical Society, will be held in the city of Evansville, Ind., Oct. 16, 17, and 18, 1817.

W. H. BYFORD, A.M., M.D., *President.*
G. W. BURTON, M.D., *Rec. Sec.*

DR. FRANK H. HAMILTON will hold his surgical clinics at Bellevue Hospital every Wednesday during months of November and December, at two and a half (2½) P.M.

PROF. F. N. OTIS gave a reception at his residence, to Prof. Pease, of Syracuse, on the evening of September 26th.

PORTABLE FOOD FOR HORSES.—The *Journal de St. Petersbourg* furnishes the following details regarding the preserved food for horses, prepared in the event of scarcity of oats, or in case the transport of the food as used at present should prove too difficult. This food is composed of pounded oats and gray-pea flour, mixed with hemp-seed oil and salt. The paste obtained by this mixture is then cut up into thick cakes of about four inches in diameter, pierced with small holes to assist the soaking in water. On being taken from the oven these cakes are strung upon wires, so that each wire holds the daily ration for a horse. Each ration, of the weight of four pounds, is equal in nutriment to ten pounds of oats. It is stated that the horses are extremely fond of these cakes, whether soaked in water or quite dry; and although, when fed exclusively on these cakes, they become thinner in appearance, they do not lose any of their strength, though hard-worked.

YELLOW FEVER AT FERNANDINA, FLA.—Fernandina has for some time past been in a very filthy condition. Eleven hundred cases have been under treatment, with fifty deaths. The ravages of the plague are now rapidly taking in the colored people, who of late years seem to have lost their immunity from this disease.

A CENTENARIAN.—The oldest inhabitant of Cairo, Egypt, died last July. She was a negress and was 106 years of age. She was in full possession of her faculties up to the very last, and was particularly noticeable for a remarkable memory.

Original Lectures.

LACERATION OF THE CERVIX UTERI, AND ITS TREATMENT.

BEING A CLINICAL LECTURE

By WM. GOODELL, M.D.,

CLINICAL PROFESSOR OF GYNECOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

(Reported by S. M. Miller, M.D.)

THE cervix uteri, as you all know, has to expand enormously in the process of labor. Either by the impatience of the attending physician to get away, or of the woman in labor to hasten the birth of the child, or from other natural causes, it often happens that the membranes are ruptured prematurely, and the head of the child forced through the undilated os, thus giving rise to a laceration which is often difficult to diagnose, and so may pass for a long while unnoticed. If the laceration takes place on the anterior or the posterior part of the cervix, it generally heals naturally; for the movement of the cervix is, for the most part, forward and backward. If, however, the laceration be lateral, or bilateral, it is not by any means so likely to heal of its own accord. The mucous membrane of the cervical canal is studded with glands and follicles, and covered with pavement epithelium. The backward and forward movement of the torn lips of the cervix, by attrition on the vagina, then produces an erosion of the surface of this epithelium, which is now exposed to injury. When, therefore, a woman comes to a physician, complaining of leucorrhœa, of pelvic weight and pains, and of other uterine symptoms produced by this injury, a superficial examination reveals merely the denuded cervical canal, and he is but too likely to overlook entirely the graver injury, and treat simply the apparent erosion. He applies nitrate of silver, or touches the raw surface with nitric acid, or makes use of astringent suppositories, and very possibly the leucorrhœa disappears, the other symptoms improve, and the patient gives up treatment, thinking herself entirely cured, only to return soon again with an exact repetition of the symptoms. Ninety-nine out of a hundred doctors will mistake laceration for erosion, and will treat it accordingly—that is, mistreat it. I have myself made just the same blunder. The proper way in which to diagnosticate laceration of the cervix is, apart from a careful digital examination, to draw the anterior and posterior lips of the womb together by means of tenacula; and if, in so doing, you are able to reduce the size of the cervix, and cause the supposed erosion to disappear, you may be tolerably sure of the existence of a laceration. Of course this state of affairs calls for a very careful examination with the speculum. In recent cases of this accident—that is, during the lying-in state—there is usually more or less cellulitis, and the pulse is high and feverish. There will be pain in the iliac fossa, the temperature will remain high, and the woman's convalescence will be slow and imperfect.

I bring before you to-day a woman suffering from the effects of a laceration. She was delivered, last December, after a somewhat difficult and tedious labor, of her first child, and ever since then she has been complaining of bearing-down and pelvic pains, and of frequent leucorrhœal discharges. These symptoms come from a subinvolution of the uterus, and she will never get well until this lacerated cervix is cured. I have placed the patient on her left side, with her hips well to the edge of the table. She has, as some of you can see when I expose the womb, a laceration on each side of the cervix. Now, this is a very unsatisfactory operation to perform before a class, and particularly as the light to-day is very poor. You can see very little of what I am about to do, and must rely entirely upon my fragmentary explanations as I go along. I say that when you have discovered this state of things you must proceed at once to an operation. Some women in this condition may get through a great many years without any suffering to speak of; but if there be any complication—like subinvolution of the womb, for example, which is usually present—there can be no such thing as recovery without an operation. Sims's speculum is the best instrument for this, as well as for other vaginal and uterine examinations and operations. Having inserted this speculum and dragged the womb down by a double tenaculum, I shall at once proceed to denude the torn surfaces (which have long ago healed in ragged edges), and bring them into accurate apposition before I introduce my stitches.

Now, this is very easy to state in words, but not so easy to execute, for the vagina is a narrow place to operate in, and the flow of blood will greatly obscure the parts. I see that the woman is now entirely under the influence of the ether, and so I begin by taking hold of the two split lips with tenacula, and by bringing them together so as to map out my field for denuding the surfaces. The womb is a highly vascular organ, and I may have some very troublesome bleeding. I ought to have brought a small wire écraseur with me as a tourniquet for the cervix; but I forgot it in my hurry, and so have improvised this wire loop at the end of a wire-twister, which I think will answer very well in its stead. I begin denuding on the anterior lip, which, from the position of the woman, is the lower one; for, if I began above, the flow of blood might seriously interfere with my work below. I am trying to pare off both surfaces of one side in one single piece, so as not to leave any portion undenuded. This cannot always be done; but, whatever plan you adopt, be sure not to leave any little islets of undenuded surface. They will inevitably prevent union. It is no easy matter to work here in the angles; the circular artery of the cervix runs very near this lower angle, so I must be doubly watchful here, and merely skim off the surface. For this operation we are indebted to Dr. Emmet, of New York, who first devised it some ten years ago. Quite recently I performed this same operation upon a lady, in whom, at the first examination, made some years ago, I failed to rightly diagnosticate the trouble. She had a retroflexion of the womb, caused by the laceration. The cervix is one of the props of the womb, and, of course, when it is lacerated, one of the main supports of the uterus is removed, and it wabbles about in all directions. I treated this lady for her retroflexion with pessaries, but without the expected prompt relief. She was barren, and her mind was so affected that she was really afraid to go out into the street by herself. I lately had the opportunity of making another examination, and found out my blunder. When a woman wishes to have children, what she will go through with to have them is only equalled by what she will undergo so as not to have them when she does not wish them; so she cheerfully submitted to the operation. The cervix united at every stitch, and when I last heard from her she was wholly well, both mentally and physically. I expect soon to receive a letter from her announcing her pregnancy. Now, just here, in passing, let me call attention to the wonderful in-

fluence which a disordered womb has upon its possessor's brain. This poor lady was made utterly wretched by this laceration: nervous, easily frightened, unable to sleep at night—in fact, almost insane. And notice how completely her health of body and of mind was restored by the operation. While talking to you my hands have been busy denuding these surfaces, and, as it is hard to be doing two things at the same time, you must excuse me if I speak somewhat incoherently. Thus far there has been but little bleeding, so I have been working rapidly. You must be careful in this operation not to denude the whole surface of each lip, but to leave a portion in the middle of each one untouched, else the cervical canal would be wholly closed. Let me give you a bit of advice as I am working. I said that lacerations of the cervix were often produced by premature rupture of the membranes. When the woman in labor is a multipara, you may generally rupture the membranes with impunity after a fair dilatation of the os. But in the case of a primipara you must not rupture them until full dilatation has taken place. There are, of course, some exceptions to this rule, but it is a good general one. See now how small the cervix becomes when I bring these raw surfaces together with my tenacula! I think that I may now begin to put in my stitches. What has been the preparatory treatment in this case? I have had tincture of iodine applied over the surface of the cervix, so as to reduce the engorgement. Hot-water injections have also aided in making the parts more healthy. The woman's bowels have been thoroughly opened. And now, before beginning to pass my stitches through, let me show you how to avoid the trouble of continually threading your needle for each stitch. I have passed a piece of fine silk thread through the eye of one needle, and tied a half-knot in it. In making my stitches I pass the end of the wire through the loop of the thread, and simply bend it over. The wire then follows the loop. I use a round and not a surgeon's needle for this purpose, because it cuts less and causes less hemorrhage. As my needle is, of necessity, blunted slightly each time it comes in contact with the speculum, as it occasionally will, I blunt but one needle, and do not injure three or four, as I have often done in the course of a single operation of this kind.

The needle must have a very short cutting edge. I shall make about three stitches on each side, putting the needle in well back from the edge, so that the stitches will not tear out. A needle-holder is indispensable here. I have put four stitches on one side, and three on the other; I think that is enough. In fastening the stitches I use perforated shot. Some excellent surgeons object to this mode of securing the wires, but, perhaps from habit, I prefer it; at any rate, I have never found any harm coming from it. What force should be employed in pushing the shot home on the wire? I make use of considerable tension—enough to bring the raw surfaces into accurate apposition. In cutting off the ends of each wire after clamping the shot, I sever them close enough to the shot to shave off a thin film of the lead with the scissors. This prevents points occurring which might wound the vagina. With regard to the after-treatment of this woman, I shall give instructions that enough of opium be given to lull any pain she may have, and, more important still, to prevent any movement of the bowels for at least a week's time. Any movement on the part of the bowels might seriously interfere with the due process of healing by first intention. She must be kept in bed for two weeks. Eight days from now I shall remove the stitches. Her water, too, must be carefully drawn during this period. Some women can't pass their water when lying on the back, and even if they could, it would not be advisable to thus allow the possibility of a small portion of the urine finding its way into the vagina and setting up an irritation on the raw surfaces of the wound. If any offensive discharge shows itself, I shall have the vagina carefully cleansed with solutions of the permanganate of potash or of carbolic acid. Cases of this kind, if not promptly attended to and cured, may result in some of those dislocations of the uterus, in which that organ hangs wholly outside of the body. I forgot to warn you at the proper time to be careful to get all clotted blood out of the wound before running the shot down upon the sutures. If at any time during the operation the hemorrhage be alarming (this has been a comparatively bloodless one) the wire-loop tourniquet placed around the cervix will temporarily arrest it. The final adjustment of the stitches will usually permanently stay it.

But suppose that a secondary hemorrhage takes place, as it occasionally will, what is now to be done? You must insert a speculum, and plug up the vagina in the manner that I am about to illustrate, with my thumb for the cervix and my assistant's hand closed around it to represent the vagina. With wet and flat pieces of cotton, not larger than a silver dollar, you will firmly pack the upper portion of the vagina all around the cervix, until the layers of cotton reach the os. Then fill up the rest of the vagina so as to keep this important upper packing from becoming displaced. In this way you not only effectually tampon the vagina, but you bring the stitched surfaces in closer relation to one another, and, consequently, in the best possible condition for uniting.

From want of room and from the inaccessibility of the parts, all plastic operations about the womb and the vagina are very tedious ones. I have been, more than once, over two hours in closing a vesico-vaginal fistula. The temptation of an operator before a large class of students is to hurry through with his work, yet you see that it has taken me my whole lecture hour to perform this operation.

Original Communications.

THE NATURE AND TREATMENT OF NEURASTHENIA (NERVOUS EXHAUSTION), HYSTERIA, SPINAL IRRITATION AND ALLIED NEUROSES.

By GEORGE M. BEARD, M.D.

PART II.

(Continued from page 585.)

I HAVE lately had my attention directed to two other cases of hay fever, where the attacks were brought on through sexual irritation: in one, excess in intercourse; in the other, a seminal emission would create the paroxysms on the following day.

The vicariousness, interchangeability, and correlation of these neuroses, is one of the most significant and suggestive facts in medicine. Thus, when hay fever appears, sick headache disappears, and again recurs when the hay fever has completed its course. Nervous dyspepsia likewise takes the place of sick headache, and is replaced by it. Several cases have been reported to me where a severe attack of nervous dyspepsia followed recovery from an attack of hay fever, and in a large number of instances hay fever has disap-

peared almost instantly on the appearance of diarrhœa or dysentery. Dr. Lente tells me that he saw this summer, at Saratoga, a lady in an attack of cholera morbus, which for the time caused her hay fever to vanish utterly. I have known pain in the back of the neck to change suddenly into pain in the epigastrium. Inebriates and opium-takers seem to suffer less from other maladies than if they were not slaves to their habits.* It is possible, indeed, for one to suffer from nearly all of these neuroses at once, the symptoms skipping about from one part of the organism to the other, under the influences of changes in habits or environment, or through mental influence. The symptom of spinal irritation especially comes and goes like the wind; this evanescence and changeability of the symptoms is one of the leading signs in the differential diagnosis of these neuroses. In the majority of organic or structural diseases of the brain, spinal cord, or peripheral nerves, there is a fixity and permanence to the symptoms as regards locality, though they do not endure all the time. An illustration that I have sometimes used to make clear the distinction between functional and structural diseases is the well known double tree that was formerly pointed out to travellers on the stage route between Ticonderoga and Lake George. Two trunks grow up side by side, so close together and so similar as to appear but one tree, but at some distance from the ground they gradually separate, and each branches out by itself, one into an oak, and the other, I believe, into an elm. So, functional and organic diseases in many of their early symptoms are so nearly alike as to seem practically identical; but in their middle and later stages they diverge widely, so as to have little but pain in common. One of the earliest signs of their divergence is the fluctuating character of functional symptoms as compared with the stable character of organic symptoms. This point is practically of the highest moment, since the evanescent, fleeting and metastatic symptoms of these neuroses are very often mistaken by the profession and the people for symptoms of organic disease, and thus needless fear is felt. A physician of large experience and unusual accomplishments once consulted me in deep depression and alarm on account of certain symptoms —as twitchings of the muscles, spinal irritation, and neuralgia—which he feared indicated structural disease of the cord. I told him that he could not get up an organic disease of the cord if he tried; that while there might be hysterical and other functional symptoms in organic disease, yet, as a rule, those who have one kind of malady do not have the other; and that functionally diseased subjects are far less likely to have organic disease than those who are not so diseased. These disorders frequently act as safety-valves to the system, and thus become disguised blessings. Notably, sick headache appears, in some cases, to be a kind of waste-pipe through which nerve-perturbations escape. Hay fever acts in a similar way in some cases, although in others it produces exhausting effects. Many who suffer from it are comparatively well during the portion of the year when the attack is not upon them, and also get rid of many nervous symptoms that annoyed them before they became victims of hay fever.

* In this series of papers I have assumed that hay fever and inebriety are neuroses, although I am not unaware that all have not yet sufficiently studied this subject to understand the arguments by which these claims are demonstrated. Those who wish to look further into the subject are referred to my paper on "New Facts and Suggestions Relating to Hay Fever," published in the MEDICAL RECORD in October, 1876, and to the *American Journal of Inebriety* for 1876 and 1877, for papers on Inebriety as a disease, by Drs. Mason, Parrish, Crothers, and others.

Transient numbness and various abnormal referred sensations—as pricking, stinging, a feeling of localized cold, crawling beneath the skin, and flying neuralgia — oftentimes drives a patient to the doctor, or to silent despair, lest paralysis be at hand. There is much of unscientific fear in this regard. Many of the premonitory symptoms of locomotor-ataxy—as flying, boring neuralgic pains, abnormal sensations at the bottom of the feet, pain in the back, and so forth—may be perfectly simulated by functional trouble of the cord. The confounding of organic and functional disease has been unintentionally encouraged by certain German writers who have neglected to make proper distinction between spinal irritation, spinal congestion, and spinal sclerosis. This neglect is the effect, in part, of the lack of opportunity in Germany of studying spinal irritation and the class of diseases to which it belongs.

The following case illustrates at once the importance and difficulty of making the differential diagnosis between organic and functional nervous disease.

V.—HYSTERIA AND PARALYSIS FOLLOWING SPINAL CONGESTION—RECOVERY UNDER GENERAL FARADIZATION ALTERNATED WITH CENTRAL GALVANIZATION—RELAPSE UNDER EXCITING CAUSES.

Miss C. P., a maiden lady under middle life, consulted me in June, 1874, for symptoms of paralysis of the lower limbs. She could not walk across the room, even with crutches, and was forced to get about by means of a machine such as is sometimes used for children with infantile paralysis.

The origin of the difficulty was by her referred to taking cold while sitting on a cold stone on a mountain-climbing expedition at the time of the menses. An immense variety of symptoms, primary and secondary, followed that exposure—among others, ulceration of the uterus. At one time there had been general and severe hyperæsthesia; the sensitiveness had been so great that a slight touch was disagreeable. Various other hysterical symptoms also appeared.

She had been treated by general faradization before I saw her, and for a long time with a certain degree of benefit; but there remained a paralysis of the lower limbs, with frequent attacks of pain in the back and sides, and various evidences of nervous sensitiveness and debility. Insomnia was an unpleasant symptom.

I began treatment by central galvanization. The first application was quickly followed by sound sleep. Being thoroughly persuaded that the symptoms were mainly of an hysterical character, although excited originally by exposure to cold, and although there had been proofs of spinal congestion, I continued the use of central galvanization, with surprisingly rapid results. In one week she could walk with a cane, and the machine was cast aside. The improvement went on with various fluctuations, until in two months she was able to walk, with assistance, in and about the house. The various functions improved at the same time with the power of locomotion, and in a few weeks the patient was able to go about independently. She then left the city, but she informs me by letter that from that time to the present her health has in various respects been very much better; long after the special treatment was discontinued the improvement progressed steadily. Early in the autumn, however, she was persuaded to take sea-bathing, which brought on a return of many of her symptoms. The following summer she again improved to such an extent that she was able to do housework. The following winter she had an attack of diphtheria,

which exhausted the system and caused another relapse. This present season (1877) she is again as well as usual.

The spinal cord, when once it has been exhausted, very readily relapses under exciting causes. It is somewhat hazardous to report a case as permanently cured and out of danger because nearly all the symptoms have disappeared. I knew a lady with symptoms in many respects similar to those in the case just detailed, who, after a long course of electrical treatment, had substantially recovered, to her great satisfaction. One day she chanced to fall down. The shock put her back for months, although she again recovered under the same treatment.

VI.—SPINAL IRRITATION IN A MALE.

A young married man, about thirty years of age, had been for over a year afflicted with spinal irritation, accompanied, as usual, with considerable debility and insomnia. The spinal tenderness was noticed chiefly in the middle dorsal and lumbar vertebræ; very little usually at other points. The patient attributed his difficulty to over-physical and mental toil in his business.

Unless the spine had been examined, the condition of spinal irritation might not have been suspected; the patient would have been described simply as "run down," or "debilitated;" no special attention would have been given to the spine, and only general tonic treatment would have been used. The employment of general tonic treatment would have been perfectly proper; indeed, it was used in the present case, but it was aided throughout by local treatment—the use of small blisters and spinal galvanization. Internally, the use of the preparations of phosphorus and zinc certainly aided in the ultimate recovery, after electrical treatment was abandoned.

One of the most prominent symptoms in this case was inability to walk or to ride any considerable distance without general fatigue and pain in the back. This symptom would not point to the spine necessarily, to one not accustomed to examine the spine in nervous affections. The case is one of many that illustrate the importance of making routine examinations of the spine, just as we make routine examinations of the retina or urine in chronic disease, or of the tongue and pulse in acute disease. *When we find spinal tenderness associated with other symptoms and history that exclude all organic or inflammatory disease, or permanent congestion of the cord, or of its membranes, or of the vertebræ, then we have spinal irritation.*

The accompanying symptoms vary indefinitely with the locality of the irritation. Irritation of the upper cervical vertebræ may be accompanied by pain in the nape of the neck, by cerebral irritation, with tenderness all over the scalp, or at certain points, or on the vertex only; and there may be also stiffness of the neck, making it difficult or impossible to turn the head, suggesting rheumatism, and usually diagnosticated as rheumatism, since the superficial resemblance is very close. Irritation of the middle dorsal vertebræ—the most common form—is accompanied by pain, feeling of pressure on the chest, and flying neuralgia, and numbness of the arms. Irritation of the lower dorsal vertebræ—a less common form—is accompanied by gastralgia, dyspepsia, intercostal neuralgia, and sometimes by palpitation of the heart. Irritation of the lumbar vertebræ—a very common form—is accompanied by flatulence, constipation, sexual disturbance, and flying neuralgia and numbness and paralysis of the lower limbs, peculiar sensations at the bottom of the feet, and sometimes tenderness of the bones. Coldness of the limbs and muscular twitchings may accompany all forms of spinal irritation. Another common symptom is readiness of the limbs to fall asleep on slight pressure, as in sitting or riding.

The probability that spinal tenderness means simply spinal irritation, and not an organic or permanent inflammatory condition of the cord, or of its membranes, or of the vertebræ, is increased by all evidences of a nervous diathesis, and is made certain when the necessary evidences of organic or permanent inflammatory disease are wanting. That temporary hyperæmia of the cord or of its membranes may occur in spinal irritation is more than probable, and it is not unlikely that under exciting causes the hyperæmia may extend the entire length of the cord; but such hyperæmia is not the disease, but one of the *results* of the disease—of the exhaustion of the cord, or myelasthenia—and this transient hyperæmia may appear and disappear every few hours or days. One day you may examine the spine and find tenderness at certain points; the next day there is no sign of it. This phenomenon does not appear in organic or permanent inflammatory disease.

We can approach this much-discussed subject through the door of analogy. A good analogue is cerebral irritation. In this condition the whole scalp, or only parts of it, may be tender. Does any one suppose that the membranes of the brain are inflamed in such a condition, or that there is any local hyperæmia or anæmia underneath the tender points that will in a pathological sense account for them?

Another good analogue are the tender points in neuralgia. What is the pathology of those tender points that come and go like the clouds of summer? Can it be anything more than nutrition-disturbance, of which almost any temporary circulatory irregularity is one of the results?

In considering this subject it must be remembered also that in spinal irritation the tenderness is by no means always confined to the spine. The whole back may be tender; the scapula and bones of the pelvis may be tender at points; there may be tenderness of the head of the hip-bone, of the clavicle, and of bony prominences everywhere. These tender points must have a common pathology—exhaustion, mal-nutrition, or irritation, as we may choose to term it. Ultimately analyzed, this disturbance is probably of a molecular character, or, at least, beyond the reach of the senses, even with all the aids of modern research. The disease is not on that account any the less a reality, or less worthy of study, for the senses introduce us to but a fraction of nature. A very large number of cases in society that are variously and vaguely described as debilitated, overworked, run down, and so forth, are really cases of spinal irritation. They are, it is true, generally debilitated, or neurasthenic, and anæmic; but the cord is the chief seat of their debility, and if special attention is given to that organ, and rest instead of severe labor is enjoined, the chances for recovery are far greater than under indiscriminate tonic treatment.

In regard to the group of diseases treated of in this series of papers, various queries have been raised of great scientific and practical importance. A few of these I will here briefly answer:

First.—Why are these diseases more frequent in the northern and eastern parts of the United States than in any other part of the world?

The fact, for those who have examined all sides of the subject, must be allowed without question.

Extremes of heat and cold, and dryness of atmosphere, are probably the chief factors in the explana-

tion. No other great and highly civilized country enjoys such extremes of climate as the citizens of New England and the Middle and Western States. The Englishman's complaint, "Half the year we freeze, half the year we roast," is quite just; our climate combines the tropics and the poles. This alternation of extreme heat and extreme cold has primarily a stimulating, and secondarily an exhausting influence, as is shown in various ways. One of the most powerful local stimulants is an alternate application of ice and hot water. The American constitution is kept under the almost constant influence of such stimulation. The excessive stimulation is further heightened by the dryness of the atmosphere, and not unlikely by attendant electrical conditions of a peculiar character.*

That it is not heat alone that induces our nervousness is proved by the fact that, as we go south, nervousness diminishes. None of the diseases described in this series of papers are as common north of Mason and Dixon's line as south of it, although they exist, more or less, in every State. This I have proved statistically of hay fever; and observation and much inquiry of physicians teach me that it is equally true of all the other diseases of this group, hay fever in this respect being only a type of all. Hence it is that nervous patients, even more than consumptives, are benefited by a trip or residence South. Hence it is that coffee and stimulants are better borne, and can be and are used with far greater freedom South than North.

The climate of California, although it possesses in different parts many varieties, is, on the whole, equable, one month being on the average much like every other month; and in spite of the speculation and other excitements of that new country, and the very unusual dryness of the air in certain districts of the Pacific Coast at certain seasons, there is, so far as I learn, less nervousness than in the East, and although the thermometer frequently goes above 100° in the shade, sunstroke until last year has been but rarely experienced. Hay fever, likewise, is exceedingly rare in California, although it exists and may sometimes be indigenous in that State.

Second.—Why are these diseases more frequent in females than males?

The general fact that females are greater sufferers from hysteria, neurasthenia, and kindred disorders than males, is undeniable; and yet they are sufficiently common in males, and oftentimes more obstinate in them. Inebriety and hay fever affect men more than women, because men are more exposed to the exciting causes; but, to nearly all the other affections here referred to, women are far more liable than men, and mainly as it would appear for these four reasons. (1). They are of a finer organization. (2). They have psychologically less will and more emotion. (3). Their pursuits are more confining and restrictive, and make less demand on the intellectual qualities. (4). Their generative apparatus is more complex than that of man, and constitutes a larger and more exacting fraction of the system.

Deficiency of will alone accounts for much of the nervousness of women; their psychology is against them. Our method of female education and social life also tends to develop emotion rather than the higher qualities of intellect, although in this respect there is constant improvement.

Third.—What will be the future of these diseases in this country?

Will this increase, so marked during the past half-century, go on indefinitely? Probably not, at least to the same degree. It is the tendency of evil to work its own cure. Various causes are now operating to retard this increase of nervousness in the American people. We live much better than formerly; have better food, in larger and more nutritious variety; dress more comfortably; take far more recreation, and are less under the influence of theological terrorism. Then there is growing up here quite a large class of hereditarily rich citizens, who, being above the need of toil and strife and anxiety for bread and beef, can keep their forces in reserve for their own physical welfare, and for that of their children. This leisure class, on its best side, is one of the safeguards of the nation's health. The increasing smallness of families, of which Dr. Nathan Allen has written so much and so justly, has this compensation, that it gives those who are born a better chance in the fight for life. All these factors working together have already told beneficially during the last quarter of a century on the American people; we are certainly increasing in weight, and improving in form and comeliness. The American men and women were never before so healthy and handsome as to-day. One of the special signs of this improvement is the decrease of nervous dyspepsia, once so common and so intractable. Probably other neuroses of this group are also on the decline. I am sure that certain types of asthenopia, partly of a psychical origin, that were so annoying to our colleges and seminaries twenty years ago and more, are not common at the present time. It is not impossible that hay fever and inebriety may soon reach their maximum, and also begin to decline; that longevity among the brain-working classes has increased is now, I suppose, undisputed.

Improved methods of sedative and tonic treatment combine with more rational hygiene to modify this tendency of neuroses to increase; by the use of electricity, massage, and the internal administration of oils and fats, many constitutions shattered and broken down and impoverished through anxiety, application, or excesses, can be, in a measure, renewed, that formerly would have been treated on wrong principles, and have suffered all their days.* The near and remote offspring of such sufferers must partake of the improvement which their ancestors receive. Quarter of a century ago children suffered on account of the bad medical treatment to which their nervous parents submitted. Those who suffered from any of the diseases in this group in the first half of this century were liable to suffer far more from the treatment than from the disease. In some instances constitutions were broken down permanently through long-continued depleting and exhausting measures. I knew a man who, about fifty years ago, was attacked while in college with nervous dyspepsia; for this offence his physician, a conscientious and good man, shut him up in a dark room and regularly bled him, meanwhile keeping him on starvation diet. A very strong constitution carried the sufferer through, but all his life was enfeebled in consequence. In those days the neurasthenic or nervously exhausted were forced to

* In Sacramento, California, and vicinity, they have at times a peculiar north wind that sweeps through the valley, and is accompanied by very marked electrical disturbances. Its effect on men, on animals, and on vegetable life, is injurious. A very interesting account of this north wind was published two years ago by a clergyman of Sacramento.

* In Part 1, speaking of the treatment of these neuroses, I omitted mention of one combination that I have been using during the past summer—the phosphated wine (vinum nutrio phosphaticum), prepared by Hunt & Dunlap, druggists, of this city. It consists of fermented grape juice, with the phosphates of potassium, calcium, magnesium and sodium. It is a very palatable preparation, and apparently effective in some cases that will not bear the emulsions, or dislike to take them.

live low and live poorly; to abstain from fats,* the very kind of food that they especially needed in such cases, and to take severe and disagreeable muscular exercise. Only a few years ago I knew a man stricken with paralysis, and in a condition of general exhaustion, who was advised to chop wood as a cure. He kept on curing himself by the prescription until he was nearly dead. Inasmuch as everything in the constitution, good and bad, is hereditary, or, at least, subject to the law of inheritance, it is just to infer that those who treat patients in the group of diseases here described by sedatives and tonics and nerve food, will so far forth benefit future generations, and aid perhaps in arresting the increase of these maladies. The degeneracy and decay of teeth is without question one of the results of the increase of nervous sensitiveness. This degeneracy was first observed in this country, and probably for the same reasons that neuroses are most numerous here. The teeth are on the average good barometers of the constitution. Dentists tell me that this degeneracy of teeth of the white population of our country is apparently not yet arrested, and is probably increasing.

In bringing this series of papers to a close, I may say that some of the leading views and facts were brought out in a paper on neurasthenia, a number of years ago, and incidentally also in other writings; but the interest manifested in the subject was so slight that it seemed best to wait for a time before formally returning to it. Since that time, views substantially similar on some points have been expressed by Dr. Jewell, of Chicago, and Dr. Mitchell, of Philadelphia, and other writers.† There is also an increasing number of practitioners who recognize all of these maladies, and who treat them on the principles here indicated, and who, perhaps, may be interested in a comparison of experiences. Hundreds of times during the past few years have I been asked why physicians do not give more attention to hay fever, so that at least they might diagnosticate, if not cure it. The usual reply has been that this malady has, so to speak, sprung upon civilization so suddenly that there has not been time to obtain and also diffuse a knowledge of its nature and treatment; but that in the next generation physicians will understand the symptoms and treatment of hay fever as well as they now understand the symptoms and treatment of chills and fever. What will be true of this one disease will be true—indeed, is already becoming true—of all other diseases belonging to this group.

THE CABLE SPLINT.

By CHARLES F. STILLMAN, M.D.,

PLAINFIELD, N. J.

(House-Surgeon St. Francis's Hospital, N. Y.)

While treating a fractured acromion process in March, 1877, the inability of any splint then in use to retain the fragments in apposition, led me to devise the apparatus now to be described; and the success attending its application to that fracture, and also to fractures of the clavicle and humerus, has led me to place it before the profession.

The splint is constructed as follows: After approximation of the fragments, the arm is encased to the axilla with plaster-of-Paris bandage in the usual manner, as shown in Fig. 1.

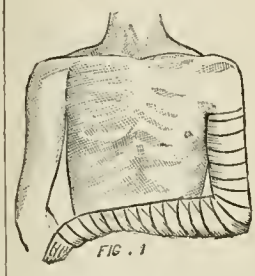


FIG. 1

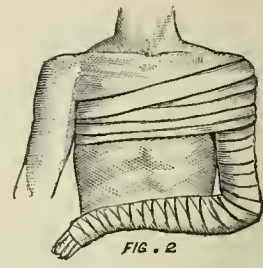


FIG. 2

The next step consists in passing folds of the same bandage around the chest, covering the side of the shoulder, as in Fig. 2.

A shoulder-cap of good thickness is then formed of strips of the same, bound down by transverse chest bands, as in Fig. 3.

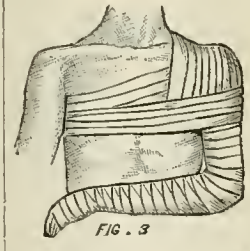


FIG. 3

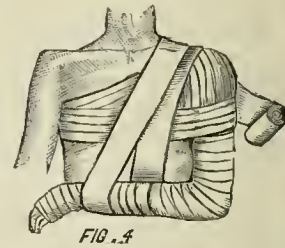


FIG. 4

Thus far the apparatus does not differ materially from those now in use—the suspension of the arm in a sling usually completing it.

At this stage of the process, the *cable*, which cements the various parts together, is formed.

A roller of plaster bandage from three to five inches in width, and of good length is selected.

This is laid over the shoulder as far back as the spine of the scapula, and brought forward and downward *behind* the wrist, around which it is wound several times to afford as broad a base as possible, and passed *anteriorly* back over the shoulder to the starting-point (see Fig. 4), where it is bound down by a turn around the chest, and again brought forward to the *front* of the wrist, under which it passes.

In returning to the shoulder it is *wound tightly* around the three slips already passed; thus forming the nucleus of the cable (see Fig. 5).

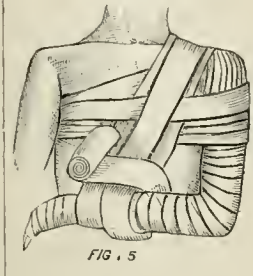


FIG. 5

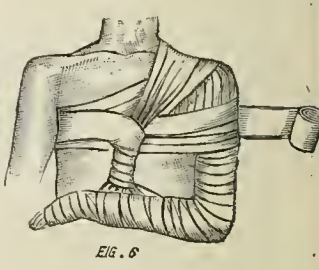


FIG. 6

Upon reaching the chest band, the bandage is passed around that until the cable is again reached (see Fig.

* Dr. Brush is my authority for the statement that in a certain part of the town in New Hampshire where he passes his summers, there has been in late years a remarkable increase of consumption. Whole families have been swept away, and their houses are left desolate. The situation of the town is elevated, and in every respect healthful, and formerly consumption was not common there: but recently an academy has been established in the vicinity; a love of dress has been introduced among the natives; also a market for their butter, milk, and eggs, which they dispose of—reserving very little for themselves—in exchange for fineries and furniture. The consequence is that the natives have no fatty food, and are starving themselves to death: at least, such is Dr. Brush's conclusion.

† In France, Charcot and his pupils are investigating certain hysteroidal affections, with more enthusiasm than has hitherto been bestowed on diseases of this class.

6), which is once more wound to the wrist, after passing around which the bandage is returned to the shoulder in the same manner, and again brought around to the cable, which is once more wound as before.

By repeating this winding process a number of times, a plaster cable is produced of great strength and intimately incorporated with all parts of the apparatus, binding and solidifying it in a manner which

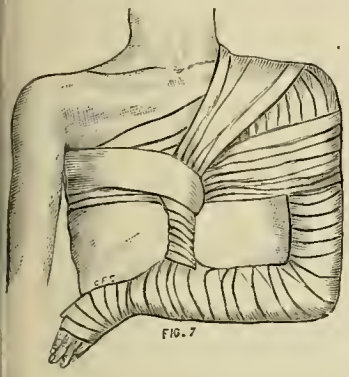


FIG. 7

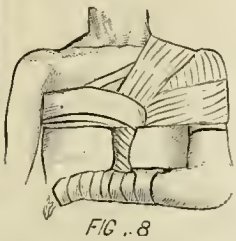


FIG. 8

prevents all disarrangement of the parts covered (see Fig. 7).

ADVANTAGES OF THE CABLE SPLINT.

1st. Perfect immobility.

The cable may be grasped and shaken rudely without giving pain to the patient, or disturbing the relations of the parts beneath.

2d. Ease of application.

3d. It does not constrict the neck, as does the ordinary cloth sling, the weight being borne by the shoulder and upper part of the chest.

4th. It prevents the leverage outward of the arm upon the shoulder, which is not entirely obviated by any other apparatus now in use.

USES.

1st. In fractures of the clavicle, scapula, and humerus.

For the first, the shoulder should be held upward and backward during its application.

2d. For insuring rest after dislocation of the elbow- or shoulder-joints.

3d. For disease of the elbow- or shoulder-joints. For the former the splint is applied as in Fig. 8, and possesses the advantages of securing perfect freedom from motion, and yet leaving the affected joint open for inspection and dressings.

CASE OF PERINEPHRITIC ABSCESS.

By F. L. FORSYTH, M.D.,

PROVIDENCE, R. I.

History.—Patient H——, accustomed to the excessive use of alcohol, broke off from the habit six weeks before coming under medical observation. At that time exposure to wet and cold was followed by sore-throat, substernal tenderness, anorexia, pains of rheumatic character, constipation, and night-sweats.

Family history not known.

Two years ago patient had perineal section performed for strictura urethræ following gonorrhœa; has used no sounds or bougies since that time.

Present Symptoms.—October 14, 1876: general pains, thirst, night-sweating, frothy, white expectoration, and diminished amount of urine, of dark color and high specific gravity. His urine was passed with difficulty, and stream was very small. Crepitant râles were heard over lower left chest, behind, but no dulness could be determined on percussion.

Oct. 15th.—Slight dulness over lower lobe of left lung; bronchial respiration, with no râles: prolonged expiration on right sides; no râles; rusty expectoration; chlorides in urine diminished. Pulse 80; temp. 100°. From Oct. 16th to Oct. 20th the average of the daily pulse was 103, and the temperature 103.4° Oct. 20th there was developed a slight friction-murmur in the axillary line, at the base of the chest, on both sides. No effusion was present; neither did any occur subsequently. Patient has been growing gradu ally weaker. The lungs have returned to their normal condition.

Oct. 21st.—Pulse and temperature normal. Oct 22d.—Delirium and great pain. Oct. 23d.—More comfortable; pulse and temperature normal.

Oct. 25th.—Complains of pain in left side, below the false ribs; pulse and temperature slightly elevated. Pain increased until Nov. 9th, when patient had a profuse diarrhœa, which was not controlled till Nov. 14th.

Nov. 12th.—Temp. 101.5 .

Nov. 13th.—Temp. 102.5 .

Nov. 14th.—Pain in side more severe. Patient also complains of pain near external abdominal ring, but no visible cause was found, nor was there tenderness on manipnlation. Temp. 104°. In the afternoon there was circumscribed redness, with fluctuation opposite last dorsal vertebra. Obtained, by aspirating, four ounces of laudable pus. Evening: pulse 88; temp. 101°.

Nov. 15th.—Pulse 80; temp. 100°. Patient stronger, but no appetite.

Nov. 16th.—More pain. Aspirated and obtained six ounces of pus.

Nov. 20th.—Four ounces of pus obtained by aspiration.

Nov. 22d.—Six ounces of pus, and

Dec. 1st.—Four ounces of pus by same means.

Dec. 2d.—There is a small opening where abscess was aspirated, and a continual leaking of pus.

Dec. 19th.—Made free incision into abscess; some pus discharged. Probe passed in four and a half or five inches. Oakum tent was placed in the opening, and the discharge continued till Jan. 2d, and at this time, the tents having been removed, the opening healed.

Jan. 15th.—Small sounds were passed, after which patient passed from 2,400 c.c. to 3,250 c.c. of urine *per diem;* sp. gr. 1013; no albumen or sugar.

Feb. 17th.—Patient's health being in good condition, divulsion of urethra, according to Holt's method, was performed. 3,000 c.c. of urine *per diem* still continued to be passed for a week, then diminished, and March 1st the patient was apparently in perfect health.

The patient had not at any time received an injury in the region of the kidney, but, as in the cases reported by Dr. Bowditch, he was very much debilitated when the disease commenced.

The urine at no time contained albumen, blood, or pus, and the retention was due to the stricture.

The troublesome diarrhœa which he had Nov. 9th seemed to be caused by extension of the inflammation to a portion of the intestines.

The patient at first was treated simply for the pneumonitis. Stimulants were pretty freely demanded both at that time and subsequently. After the subsi-

dence of the pneumonitis, the patient, besides having his appetite tempted in every way, took quinia and cod-liver oil.

Iodine and mustard were employed as counter-irritants at the time he complained of pain.

The infrequency of the affection is my apology for presenting the case.

PROVIDENCE, R. I., May, 1877.

A CASE OF VOMITING IN PREGNANCY SUCCESSFULLY TREATED WITH INGLUVIN (VENTRICULUS CALLOSUS GALINACEUS).

BY CHARLES G. FROWERT, M.D.,

PHILADELPHIA, PA.

I WAS called to see Mrs. S., aged 27 years, June 8, 1877, who stated that she was suffering from constant and excessive nausea, which was only relieved upon assuming the recumbent posture. This continued, gradually increasing from day to day, until in a week it eventuated in retching and emesis, during which watery matter with an acid taste, followed by bile, was ejected. This reached such an extent that the patient had hardly any freedom from it during the whole twenty-four hours, vomiting as often as twelve times a day.

Taking this in connection with suppression of the menses, I concluded she was pregnant, and obtained from her the following history:

This was her third pregnancy. With the two preceding ones she suffered quite as much as with this, and, according to her statement, "had employed the services of several physicians, who administered almost every medicine in the pharmacopœia," but without avail, and she was obliged to lie in bed almost the entire nine months, in order to obtain relief from vomiting.

I proceeded to treat her in the orthodox way; advised the administration of a gentle cathartic, gave carbonic-acid water freely, and prescribed the following:

℞

Bismuthi subnit.	ʒ j.
Pepsinæ sacch.	ʒ ss.
Cerii oxalat.	gr. ix.

M. In chart. No. vj. Div. et sig. one every two hours in carbonic-acid water.

This was not followed by the slightest remission in the symptoms.

I then doubled the quantity in each powder; this also failed.

I finally increased the subnitrate of bismuth to ʒ i. doses every three hours, as recommended by several eminent physicians. This was followed by acid. hydrocyanic. dil., two drops every three hours, also highly spoken of. Various hygienic measures, as well as some other medicines, were resorted to, but all failed to bring about the desired relief.

About this time my attention was called to the preparation *ingluvin*, recommended in cases of this kind, and I determined to try it at once.

I prescribed *five grains* of Warner's ingluvin every two hours, and continued this for three or four days, without any appreciable result other than diminishing the violence of the attacks of retching and vomiting.

Increased the dose to *ten grains* every two hours. This seemed to relieve my patient to such an extent that she only vomited before meals, at the sight or smell of food.

I then increased the dose to fifteen grains, giving it half an hour before each meal. This soon had the desired effect of controlling the attacks. Continuing the same dose every three hours, the vomiting and nausea ceased entirely in four or five days.

She made a complete recovery in the second month of her pregnancy, in three weeks from the time she commenced the use of ingluvin.

Ingluvin has certainly proved very efficacious in my hands, and I would therefore cordially recommend it to the medical profession as worthy of a trial. I consider it an invaluable remedy in obstinate cases of vomiting in pregnancy.

I might also add that I have used ingluvin successfully in several cases of chronic dyspepsia, in which pepsin had failed.

Progress of Medical Science.

INTERNAL USE OF OPIUM IN THE PHOTOPHOBIA OF SCROFULOUS CHILDREN.—Dr. Betz states that opium given internally relieves the photophobia in cases of phlyctenular keratitis in children much more quickly and thoroughly than the local use of atropine. He gives five or six drops of the simple tincture, at bedtime, to children of two or three years. At the same time he uses cold compresses, or, if the case be severe, iced compresses, but regards the tincture of opium as his chief remedy. He gives this in gradually increasing doses, until a quiet sleep is produced, and then stops. The opium not only controls the restlessness and jactitation during sleep, but also causes a rapid melioration of the local symptoms. The patients are able to open their eyes earlier than usual in the morning, and sometimes the action of the opium is so prompt that the photophobia completely disappears after two or three days of treatment. Not infrequently local treatment is unnecessary, as the phlyctenula is usually of little importance. The disappearance of the photophobia is attended by a change in character, the previously sulky, peevish children becoming cheerful and happy. To prevent relapses, Dr. Betz continues the evening use of opium in diminished doses for some time, and believes that its use improves the entire nutrition of the children. The temporary constipation caused by the opium is of little importance, and laxatives should be used with caution for fear of weakening the patients and interfering with the action of the opium.—*Memorabilien*, 22d Year, 7.

DEATH FOLLOWING AN INJECTION OF APOMORPHIA.—At the meeting of the *Niederrheinische Gesellschaft*, in Bonn, on Dec. 18, 1876, Dr. Ungar reported a case of sudden death following the subcutaneous injection of one-fifteenth of a grain of muriate of apomorphia. The patient was fifty-four years old, of kyphoskoliotic build, and was suffering from chronic bronchial catarrh, and moderate emphysema. The prognosis ad vitam was not unfavorable. The apomorphia was injected in the neighborhood of the ensiform cartilage, and seven minutes later the patient died with symptoms of collapse. There was no vomiting. The autopsy, which was made by Prof. Koester, revealed nothing that could explain this sudden death.—*Memorabilien*, 22d Year, 7.

RESECTION OF THE KNEE-JOINT WITH CROSS-SECTION OF THE PATELLA.—During the last three years, Prof. R. Volkmann, of Halle, has performed resection of

the knee-joint twenty-one times, with the loss of only one patient, who died of acute basilar meningitis, three weeks after the operation. In all of these cases, nevertheless, the operation was a particularly severe one, for in all of them it was considered advisable to extirpate the capsule *in toto*. In the more favorable cases the wound healed completely and permanently, without any fistulæ or drainage openings, in from sixteen to twenty-one days, and even in the most unpromising cases the process of cicatrization was, as a rule, considerably shorter than is usual. Prof. Volkmann now combines extirpation of the capsule with resection of the bones in all the joints whenever there is marked fungous degeneration of the capsule or pronounced tuberculosis of the joint. After resection of the hip-joint he has repeatedly seen the wound permanently closed at the expiration of six or eight days, and three weeks after the operation some of the patients were able to walk about with the Wolf-Taylor apparatus, and to leave the hospital. In all his cases the strict antiseptic treatment was employed.

For the total extirpation of the capsule a somewhat larger incision of the soft parts is required than would otherwise be necessary. The usual longitudinal incision, however, answers well enough for the shoulder-, elbow-, and hip-joints. For the knee-joint Langenbeck's longitudinal, arched incision is better than the H-shaped or the curved incision across the joint, because it leaves the quadriceps extensor tendon intact, but it does not give sufficiently free access to the joint. To secure both the advantages, Prof. Volkmann proposes to make a horizontal incision across the joint, and to divide the patella with a saw into two halves, which are to be united by catgut sutures at the end of the operation. He has already operated four times by this method, and in all four cases the wounds healed by first intention, and the two halves of the patella have united so perfectly that no furrow or ridge can be discovered by palpation. He found that this plan gave him freer access to the joint than could be obtained by any other method, while at the same time the incision was not as extensive as the longitudinal or U-shaped incision. In one case the patella was perfectly firm fourteen days after the operation.

The incision extends horizontally across the patella from the anterior border of the epicondyle on one side to the anterior border of the epicondyle on the other side. The joint is opened on both sides of the patella and the index-finger passed under the bone, which is then divided with the saw or knife. The lower half of the patella is now drawn downwards and secured out of the way, while the lateral and crucial ligaments are divided and the end of the femur resected. The head of the tibia is next pressed forward into the wound, and the semilunar cartilages are seized at their posterior borders and removed along with the remains of the crucial ligaments, and the greater part of the adipose tissue which covers the posterior surface of the ligamentum patellæ. The head of the tibia is then laid bare and resected, the capsule is dissected out, and any carious spots in the resected bones or in the patella are gouged out. Finally the resected surfaces of the femur and tibia are brought together by two strong catgut sutures placed laterally, and the two halves of the patella are united also by two catgut sutures. The sutures are introduced into both the epiphyses and the patella by means of strong curved needles. The operation should always be preceded by an exploratory incision, which will enable the surgeon to examine the joint by both finger and eye; for this purpose the incision should at first only be carried from the epicondyle as far as the border of the patella. If this explanatory incision shows that the operation can possibly be avoided, a drainage tube should be introduced and the wound dressed antiseptically. The patella will sometimes be found firmly attached to the femur, but it can be easily separated with the chisel.—*Deutsche Medicinische Wochenschrift*, August 18th.

Exophthalmic Goître cured by Galvanization of the Sympathetic in the Neck.—The *Gazette Médicale* of Sept. 1 quotes the following case from the *Giornale Veneto di Scienze Mediche*: The patient was a girl nineteen years of age; her brother suffered from progressive muscular atrophy, his sister from frequent attacks of hemicrania, and she herself had been subject, throughout youth, to repeated diarrhœas accompanied by colicky pains, which occurred without traceable cause, and proved rebellious to all treatment.

Two years ago the eyes became more prominent, and palpitation of the heart appeared. Shortly afterwards a tumefaction of the neck was noticed, accompanied by emaciation, prostration, frequent flushing of the countenance, diarrhœa, and change of character, which became irritable and capricious; the digestive functions became languid. Dr. Ancona proposed galvanization of the first cervical ganglion of the sympathetic. The poles were applied to either side of the neck behind the angle of the jaw, pressing back the sterno-mastoid muscles. He employed at first ten elements of the apparatus of Dr. Stoehrer. Each application lasted from three to five minutes. After a few days the circuit was frequently interrupted.

The physiological effects observed were: Dilatation of the pupils at each closing of the circuit, more marked on the side corresponding to the negative pole; slight contractions of the sterno-mastoid muscles; sometimes an increased flow of saliva, and a coppery taste in the mouth; occasionally some vertigo. In the course of five months, one hundred sittings were had. The treatment was well borne, and during the whole time she only suffered from one severe attack of hemicrania, and two very light ones. With the treatment by electricity was associated the internal administration of arsenic. From the very beginning of the treatment a notable amelioration was observed which proved continuous, so that at the end of five months the patient had increased in weight some 13.5 kil. (about thirty pounds). The face and the mucous membranes gradually returned to their normal color. The eyeballs regained their position and their mobility; the thyroid body became greatly diminished in size; the pulsation of the arteries ceased to be visible; the cardiac impulse became regular; the pulse beat forty times a minute; menstruation became regular, and with the digestive functions the strength returned.

Japanese Practice.—It is said that the Japanese have such a high estimation of the value of the services of an educated physician that they think it an insult to him to offer any other recompense than profuse compliments to his learning, skill, and charity. If such physicians do not become dignified in their calling it is not because they have not plenty of opportunities.

Gastric Juice.—According to the recent experiments of M. Laborde, (Société de Biologie, June 9th,) free hydrochloric acid does not exist in the gastric juice in the physiological state.

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New York, October 20, 1877.

HOW TO MAINTAIN DISCIPLINE.

The necessity for a Code to govern our professional conduct is in itself a reflection upon our character as liberal, high-minded, and honorable gentlemen. But while it may be said that the upright man needs no set of rules to guide his course or regulate his relations to his peers, there are enough men in our ranks whose moral obliquity make them the fit subjects of discipline. It is the enforcement of the latter which is always disagreeable and sometimes difficult.

With the knowledge that no one is perfect either in motive or in act, it is always an ungracious task to make charges against a brother. Rather than become a prosecutor on behalf of the profession, almost any medical man would smother his individual indignation and keep quiet. Yet every one knows that this is not the way to uphold the dignity of our calling, to respect our laws, or to protect our personal rights. If we have a Code to which we subscribe, we are in honor bound to obey its injunctions; and if there are any doubts as to the manner in which we should do it, the sooner they are settled the better. There should be some tribunal before which doubtful cases should be brought. We believe we speak the sentiment of the profession when we claim that the present is a peculiarly fitting time to settle the differences of opinion regarding what should and what should not be considered violations of the Code.

Since the time that a late President of the American Medical Association declared that the Code was virtually useless, and since he rather defiantly accorded his practice with his principles, the whole country has been more or less afflicted with an epidemic of quackery, and even the best of men yield themselves to the temptations of the hour. The consequence of this is a great and growing dissatisfaction among the more conscientious members of the profession. Indeed this is no more than could have been expected.

It is not our purpose to refer to the many open violations of the Code which are constantly transpiring, but to discuss the practicability of enforcing that discipline which shall insure equal rights to all. Obviously the County Societies are the authoritative bodies to which we should appeal. But as they are to act in the capacities of a jury, it is quite important that some one should bring the requisite charges before them. Take, for instance, the Comitia Minora of our own County Society, which may be considered the type of others throughout the country. That Committee is not competent to take the initiative in any case of violation of the Code, but can act only when definite charges are made by other parties. In not attempting to make suitable provisions to meet emergencies, many excellent organizations have crippled their real powers and destroyed their influence for good. As we have before intimated, no single individual, who is not specially wronged, cares to go out of his way to perform what at all times is a very unpleasant duty. Consequently it is seldom or never done, and the violators of the law grow bolder and bolder. To overcome the difficulty in question, there seems to be one remedy, and that is the establishment of a Committee of Ethics, to whom all questions can be referred either by individuals or even by the Comitia Minora itself, and by whom all cases worthy of notice could be brought to the attention of the said Comitia Minora, and by the latter directly to the Society. This would take away the responsibility from any individual, and the duties would be nothing more than purely official ones.

We believe that there is such a machinery in almost all the County Societies save our own; at least if we are mistaken in this latter point, we have no facts to help us to a different conclusion. If there be a Committee on Ethics, it is more in name than in substance. Whichever may be the case, we should like to see it get to work, as in this city there are very many cases which boldly if not defiantly invite attention. In this respect we are not exceptional, for in all large cities such committees can find plenty to do. It is not necessary to say that every little case of supposed wrong-doing should be brought to the notice of the jury, but only the notorious ones.

We think we have arrived at a point when certain things should be decided, that the profession may know where it stands. If it be right for men to advertise operations, to publish circulars in the daily papers, to allow their medical certificates to appear in the public prints, and do many other objectionable things, it is time that the general profession should know it, that they may do likewise. What is fair for Prof. A. or B., is equally fair for Dr. C. or D. If, practically speaking, there must be no Code except for such as must be kept under, we should abolish it altogether and all become quacks at once. Then, in the race for newspaper notoriety, the only anxiety would

be concerning the chances of being overtaken as the hindermost.

The profession is really more interested in settling some of these questions than they are in punishing the wrong-doers. Before some of our leading men began to advertise, the Code was pretty well understood; now, however, the new doctrine calls for some new explanation from our County Societies. We believe if these organizations would do their duties in the premises, which, in the way we have suggested, is quite easy, every respectable medical man would consider it a violation of his obligations to his brethren to appear in the daily prints in any professional manner whatever.

THE COLOR-LINE IN MEDICINE.

The decision of the Faculty of the College of Physicians and Surgeons, denying a student of color admission to lectures, has given rise to much comment. It was certainly unfortunate for the college that a practical solution of this question should be demanded at her hands. Her best friends, doubtless, had confidence in her ability and readiness to meet the issue fairly, and to decide accordingly. Her signal failure, however, in doing so, must be a matter of disappointment if not of astonishment to all. In view of the facts of the case, it is impossible to resist the conviction that principle was sacrificed to policy. It did not seem to be so much the question whether or no the negro should attend lectures, and be taught as his white brethren, but whether his presence would be objectionable in the lecture-room. Although no such issue was submitted to the medical class, the fear of unpleasant results was sufficient to make the professors hesitate to try the experiment. The college, although a public institution, is managed altogether by private enterprise, and all matters bearing upon its financial success are entirely under the control of the faculty and of the trustees. To make the school pay is one of very vital interest to all parties more or less dependent upon its revenue, and hence the supposed wishes of patrons have to be considered. This is a poor excuse, but it is the best which the faculty can apparently offer for the course pursued. Although from the pecuniary point of view the conclusion may have seemed inevitable, those interested in the welfare of the college will nevertheless regret she was not willing to vindicate a principle regardless of consequences. That the proper initiative was not taken is a reflection on her want of independence, and is one of the many arguments in favor of endowment. If the school were endowed, there would have been no hesitation in admitting to its privileges any man, white or black, provided he had the requisite mental qualifications.

It seems too bad that on such trivial grounds of objection so fine an opportunity was not seized for rising above ordinary prejudices, and anticipating what at no distant day must be inevitable. If there is any test which should cause color, race, or sex to be wholly disregarded, it is intellectual and scientific culture. And yet an educational institution, which, above all others, should verify this test, draws the color-line, and virtually says to the negro, because you are black you must stand aside. Under all the circumstances of the case, even of those which might be qualified by temporary expediency, we believe that the college has committed a grave blunder, of which it will repent at no distant day.

If, in consequence of establishing the proper precedent, there should be any probability of the college being overcrowded with negroes, there would be time enough to act when the emergency arose. In fact, the school could afford to run almost any risk rather than play with the fire which makes the negro a martyr.

MEDICAL REPRESENTATION IN THE SCHOOL-BOARD.

As the time approaches for the creation of vacancies in the Board of Education, we take an opportunity to urge the necessity of medical representation. Aside from the fact that our profession is a learned one, ranking in general standing and influence with any other, and consequently capable of advising in general matters connected with education, there is a special reason why its services upon the central board should be required. The intimate relation which has been shown to exist between the physical and mental wants of scholars is such as to place the question beyond the pale of argument, and convince every unprejudiced person of the necessity of the measure so often advocated by us. While there are two very good reasons why the profession should be represented in the way suggested, there is no possible argument against the measure. The Mayor of Brooklyn recognized its utility by appointing Dr. A. N. Bell as a member of the board of that city. The Mayor of our own city cannot go amiss in following the example.

A Salutary Example.—In France, a pharmacist who does not follow to the letter the directions of the physician in compounding a prescription, and who replaces any of the drugs ordered by others, is liable to prosecution. An apothecary in Lille was recently surprised by the inspectors in the act of putting up a prescription which called for the milk of phosphate of lime, and bitter orange-peel. As he did not have either of these articles in his store, he replaced them by cod-liver oil, quinine, and anti-scrofulous syrup. The Court condemned him to pay a fine of 50 francs, and ordered that the judgment be published in three papers.

A terrible famine is now desolating the north of China and the Chorea, and the inhabitants are dying by thousands. The famine is principally due to a host of grasshoppers which has ravaged the plantations for 200 miles inland, and the plague has come to aggravate the existing horrors.

Reviews and Notices of Books.

TRANSACTIONS OF THE CONNECTICUT MEDICAL SOCIETY for 1877. EIGHTY-SIXTH ANNUAL CONVENTION.

THE proceedings of the eighty-sixth annual convention of the Connecticut Medical Society, held at Hartford in the latter part of May last, have just been published in pamphlet form, and copies will be largely welcomed by practitioners on account of the full reports of curious and important cases which the committee on publication have thought best to incorporate. The address of Dr. Burrows, of Hartford, President of the Society, "on Malarial Fever in New England," which figures as the initial document in the report, although purporting to give merely a cursory glance at the subject, is so crowded with facts as to resist clever summary. While amply discussing the history of malarial fever in Connecticut, it furnishes pretty full statistics of the recent epidemic prevalence in several counties of the State. It appears from Dr. Burrows' paper that New Haven and its vicinity formed the centre from which, from 1866 to 1872, the disease radiated, gradually involving Fair Haven, East Haven, Brandford and North Brandford, Guilford, North Haven, Hamden and Meriden, all of which were visited with considerable severity during the six years specified. In 1872 it had travelled up the Connecticut River as far as Hartford, where it broke out on Wethersfield avenue, one of the exciting and local causes of the outbreak appearing to have been the construction of a sewer about a mile and a half in length parallel with the avenue, through a low marshy ground, underlaid with red clay that lies contiguous, and is partially drained by a sluggish rivulet that empties into Folly Brook. During the summer also—the outbreak occurred in the fall of 1872—the adjacent meadow lands on the east were disturbed by operations consequent upon the construction of the Connecticut Valley Railway. The disease appeared in East Hartford in 1872, but did not become epidemic until the summer of 1876, the terrible heat and dryness of which will be long remembered by weather prophets. The thermometer registered over 90° for thirty successive days, June 20 to July 20, and on four of those days rose to 100°. So sudden and universal was the development of the epidemic that along the river, within half a mile of the canseway northward, out of 174 inhabitants 143 came under treatment for intermittent fever—an extraordinary exhibit certainly for a period so brief, and one that justifies the exhaustive study of malarial disease in Connecticut, which forms the principal feature of the transactions of the society at the last convention. Dr. Burrows leans apparently to a theory that Prof. Charles Hooker was among the first to advance, and one that has been pretty generally adopted by medical men in Connecticut, that a gradual change of diathesis, noticeable principally in an increased efficacy of quinine in cases which were formerly aggravated by it, had been in progress for some years previous to the outbreak of the intermittent, and quotes letters from practitioners in the various cities and towns of the State, expressing the opinion that malaria has impressed a paroxysmal type on all diseases occurring within their practice. The reports of the county societies abound in cases of considerable interest to the active practitioner. Dr. Griswold, of Plantsville, details his experience with nitrite of amyl as a remedy in nervous diseases, and Dr. W. F. Parsons, of Enfield, reports a case of hydrophobia, with very full notes of the symptoms developed during the progress of the disease. There was no autopsy.

TRANSACTIONS OF THE RHODE ISLAND MEDICAL SOCIETY, 1876-1877. Central Falls, R. I. 1877.

ASIDE from routine, the transactions of the Rhode Island Medical Society for the years 1876-7 contain only a single paper, but that one is of material interest to practical men, being a dissertation on diphtheria, read by Dr. W. E. Anthony at the December quarterly meeting, in which, after giving a brief clinical history of the disease as it has come under his observation, he relates his experience in treating it with the sulphocarbolate of sodium, a paper upon which was, it will be remembered, read before the society by Dr. C. H. Fisher in December, 1875. Dr. Anthony gives notes of eighteen cases of true diphtheria, occurring in his practice within the months of October, November, and December, 1876, in seventeen of which he used the remedy with satisfactory results. In one case, however, the disease proved fatal within thirty-six hours from the date of invasion. The patient was of naturally delicate constitution, and only three years of age. The sulpho-carbolate of sodium appears to increase the amount of urates and lithates in the urine, and may be given in doses of from one to ten grains, repeated every one, two, three, or four hours, as circumstances may prescribe. Dr. Anthony has given as high as 120 grains in twenty-four hours to a patient only seven years of age. The remedy may, he thinks, be advantageously combined with quinine or carbonate of ammonia. Of course, he cannot forbear a learned reference to the German theory that diphtheria is of bacterial origin.

SANITARY CONDITION OF LYNN, including a Special Report on Diphtheria. By J. G. PINKHAM, M.D. 1877. Boston.

DR. J. G. PINKHAM'S report on the "Sanitary Condition of Lynn," which is reprinted from the eighth annual report of the State Board of Health, Mass., although it discusses at considerable length the causation of typhoid fever, scarlatina, and consumption, is principally valuable to the practitioner because of an exhaustive and careful inquiry respecting the local causes of the severe outbreak of diphtheria that visited that city last year. The reporter has collected the facts of 518 cases, in which the ratio of fatality was 1 to 4.9, and records 96 additional cases, of which no careful memoranda were taken, making in all 614 cases of diphtheria in one year in a city of 32,600 inhabitants. In this report special reference has been had to the natural conditions under which the disease has prevailed, to the artificial conditions under which it has prevailed, and to its contagiousness; the work of specia linspection having been mainly entrusted to Dr. S. W. Clark, who appears to have performed his task with commendable efficiency. Upwards of 80 per cent. of the cases were in the valleys of brooks, or in the vicinity of marshes or bodies of water where the soil is usually more or less damp, and nearly all of them occurred in the outskirts of the city, in districts, that is to say, where no means of artificial drainage have yet been adopted. The comparative elevation above the level of the sea appears to have had no special influence on the disease, except in so far as it is a factor in determining the condition of the soil; but it is noticeable that in several of the sections visited during the year, the subsoil consisted of an almost impervious clay. The month of highest prevalence was October, which is

credited with 23 per cent. (or nearly one-fourth) of the whole 614 cases. The disease declined in August, increased rapidly during the latter part of September, attained its maximum in October, and then gradually sunk again during November and December, so that the January list of cases was only 2 per cent. of the whole number for the year. The reporter notes that October, 1876, was several degrees colder than usual, and marked by prevailing northwest winds, a low rainfall, and a very dry atmosphere, while the November that followed was an extremely wet, foggy, and disagreeable month. Again, April, 1876, was an exceedingly pleasant month, although the fatality of diphtheria was at its maximum. Dr. Pinkham draws from these facts the conclusion that the immediate humidity of the atmosphere is not appreciably influential in determining outbreaks of diphtheria, and that medical inquirers must probe a little deeper for its real causation. Concerning the question, whether the disease is contagious, he observes that physicians in Lynn and the vicinity, almost without exception, take the affirmative view, and details a number of cases in which the disease has manifested all the usual traits of contagious diseases. The report is accompanied with maps illustrating the relation of the disease to the drainage and sewage system of the city.

THE PHYSICIAN'S SELF-COPYING PRESCRIPTION BOOK AND BLANKS. By WENDELL A. ANDERSON, M.D., Lacrosse, Wis. Chicago: Hadley Bros. & Co.

THIS is a pocket-sized blank book, which is arranged with carbon paper, for the purpose of furnishing duplicate copies of prescriptions when written with an ordinary lead-pencil on sized paper. This, we believe, has never been attempted before in any contrivance or arrangement for copying. In writing a prescription, all that is necessary is to place the black paper underneath the sheet written upon, when a perfect copy is furnished upon the sheet below. The former is used for the apothecary, while the copy is preserved by the physician. To those who are in the habit of keeping copies of their prescriptions (and every one should), this little pocket-companion is invaluable in saving time and securing accuracy. By its use the physician can always be assured that, in the hurry of his prescription writing, no mistakes have been made.

HANDBOOK FOR HOSPITAL VISITORS. New York: G. P. Putnam's Sons. 1877. 12mo, p. 150.

THIS little manual is one of the many admirable publications of the State Charities Aid Association, and is, perhaps, the most extensively useful of all. It is rarely that we have had an opportunity of seeing so much good sense concentrated in such a small space. The care of the sick is interesting to all who have anything to do with them, and a work such as this commends itself not only to the hospital visitor, the hospital manager, the hospital physician, or hospital nurse, but to the private medical man, the private nurse, and the watchful mother. The article on hospital building, embodying all the principles of construction, management of air, water supply, drainage, heat, etc., is thoroughly practical in character and intelligible to an ordinary reader. Those parts of the work which will, however, prove most interesting to the physician and the practical nurse, are the chapters on housekeeping and nursing service. The remarks upon the latter deserve the widest possible dissemination.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Sept. 26, 1877.

DR. F. V. WHITE, PRESIDENT PRO TEM., IN THE CHAIR.

LYMPHATIC GLANDS REMOVED FROM THE NECK.

DR. A. C. POST presented a mass of diseased lymphatic glands, which was removed on the 25th of September, 1877, from the neck of a boy four years of age. The tumor was first observed a little more than one year ago. At first the increase in size was quite slow, but for several months immediately preceding the operation the mass had increased in size quite rapidly. The tumor was situated upon the left side, beneath the sterno-cleido-mastoid muscle, skirted the great vessels, and, expanding, occupied nearly the entire space from the jaws to the clavicle, and from the trachea to the outer side of the neck. The case was regarded as very formidable, and the mother was accordingly informed that it was a matter of some doubt whether the boy would survive the operation. The tumor was growing rapidly, was encroaching upon some of the respiratory organs, as evidenced by occasional cough and dyspnœa, and it was thought to be a question of some urgency that it should be removed.

The operation, although performed under the influence of ether, was very tedious, and lasted for two hours. During its performance the patient received an enema of milk and brandy, and also a hypodermic injection of half a drachm of brandy in the thigh. The respiration and pulse continued good during the whole time, and on the morning of the 26th of September the boy was sitting up in bed, and presented good prospects for a favorable recovery. The mass weighed fourteen and a half ounces.

DR. FINNELL inquired regarding the number of blood-vessels ligated.

DR. POST replied that no large vessels were encountered.

He performed the operation in accordance with the plan recommended by the late Dr. Alexander H. Stevens, namely—to cut fairly down upon the tumor, and then, keeping close to its surface, gradually enucleate or tear out the different portions from their investing membrane. In that manner the larger vessels were, in a great measure, avoided.

DR. BRIDDON testified regarding the formidable character of the tumor, and stated his impression was that there would be a very serious hemorrhage; but the manner in which the operation was performed narrowed it down to the smallest possible amount.

The tumor was referred to the Microscopical Committee.

DR. FINNELL inquired of Dr. Post whether he would cut fairly down upon the surface of the growth in the removal of all tumors.

DR. POST replied that he should do so only in the removal of non-malignant growths.

DR. E. C. SEGUIN inquired whether there were present any appearances of marked anæmia or leucocythemia.

DR. POST replied that the boy was very pale, yet his general condition was very good, and he had fair appetite.

DR. MCCRARY presented the following report of the Microscopical Committee:

In the specimen presented by Dr. J. Lewis Smith, at the stated meeting on May 9th, the following lesions were found:

Lungs.—Fibrinous pleuritic effusion on both sides, more marked on the right; consolidation of lower third of upper lobe of right lung posteriorly; microscopical examination shows the blood-vessels in this spot to be tensely distended with blood, while the air-cells are filled with swollen epithelium and small cells. There are several small extravasations. The bronchi do not contain much secretion. Small spots of collapse scattered through both lungs.

Heart.—Pericardium covered by a thick, shaggy fibrinous layer. A few of the muscular fibres are granular. The endocardium presents nothing abnormal.

Kidneys.—Are in a condition of parenchymatous degeneration. The epithelium of the convoluted tubules, and more especially of the straight tubules of the cortex, is excessively granular; in many it is impossible to discern the boundaries between the cells. The intertubular tissue has undergone no change.

TUMOR ON THE BACK.

Dr. T. C. Finnell, on behalf of Dr. James L. Little, presented a tumor, which was removed at St. Vincent's Hospital, Sept. 26, 1877, and accompanied by the following history:

Mary McManary, æt 56; born in Ireland; widow; father and mother died of old age. The patient has enjoyed perfect health until the appearance of a tumor, thirty-seven years ago. The first notice, a small tumor the size of a currant, which grew rapidly, and two years afterwards it had attained the size of two fists, when it was removed by Mr. Rand, of Dublin. The operation was a success, but at the end of twenty years she noticed that another small tumor was growing on her back, a little below the shoulder, which was near the original spot; it did not have any discoloration; it grew rapidly, and in three years had attained very nearly the size of the present tumor. She had it removed by Dr. Schenck, of Flatbush. Three and a half years after the removal of that tumor another reappeared in nearly the same place, which grew very rapidly, and in seven months it was as large as the tumor removed formerly. This also was removed by Dr. Schenck, on Sept. 25, 1876.

About December, 1876, she discovered a small tumor at about the same situation as before, which has grown from that time until it has reached its present size. She has suffered no pain at any time, except that caused by the weight of the tumor, which was found, after its removal, to be six pounds. The tumor, at its base, measured twenty-five and one-half inches in circumference.

Dr. Finnell remarked that the history of the case was very interesting, and that it would be desirable to know what the nature of the growth was; whether it was malignant or non-malignant. The specimen was referred to the Microscopical Committee.

Dr. Post remarked that there was one feature of the tumor which made it quite unlike a malignant growth, namely—its smooth surface. Malignant tumors, especially of the carcinomatous variety, commonly involved the surrounding tissues, and did not have well-defined outlines. He suggested that it might be a recurrent tumor, which had no marked tendency to affect the general health.

Dr. Finnell remarked that the tumor seemed to be almost encysted; and that it was easily torn out by the fingers.

There was no enlargement of the axillary glands.

Dr. Briddon remarked that the clinical history was not such as belonged to carcinoma, but rather to the recurrent-fibroid class of growths.

CARCINOMA OF THE ILEO-CÆCAL VALVE, WITH STENOSIS—ACCUMULATION OF FOREIGN SUBSTANCES IN THE ILEUM—CONSTRICTIONS AND MALPOSITION OF THE DESCENDING COLON.

Dr. Satterthwaite presented portions of the small and large intestine of a patient who had died at the Presbyterian Hospital, in the service of Dr. Hubbard. The history, which was furnished by the House Physician, Dr. Chambers, was substantially as follows: A. D., 49, married, a native of Virginia, was admitted into the hospital August 13, 1877. Her family was said to be free from hereditary taint. During thirty-five years of married life she had one child; had never at any time suffered from uterine disease, and enjoyed ordinary good health until eighteen months previously, when she began to suffer from pains in her abdomen, associated with vomiting. These attacks passed off to recur again at intervals, and yet she was never confined by them to her bed for more than a few hours, until six months before, when she was laid up five months. Since this time similar attacks have been liable to come on after eating. Occasionally she passed a week without taking solid food, and has lost a great deal of flesh and strength.

The patient, on admission, was found to be anæmic, jaundiced, and very much emaciated. She was complaining of very severe pains in her bowels, and nausea. Bowels were constipated; no solid food, and but little liquid, could be retained by the stomach. Spasms of pain would come on every five or ten minutes, at which time the abdominal walls would present an irregularly nodulated appearance, due to the irregular distention of the small intestines. August 16th, the patient had not improved. August 17th.—After the administration of castor-oil internally, and warm enemata, a small evacuation was obtained; but, the abdominal pains becoming severe, recourse was had to hypodermics of morphia. August 20th.—But little success followed the use of injections, the amount of fecal matter brought away being very small; examination per rectum showed some displacement of the intestines, the exact nature of which could not be determined. September 1st.—The patient improved somewhat for a few days, but now is in the same condition as at first. No action from the bowels except when an injection is used. On consultation it was determined to inject the large intestine to its utmost capacity, for the purpose of distending it so as to rectify obstructions or displacements; but when the attempt was made, only one and a half pints of water could be forced in.

September 5th.—Injections of water having given no relief, and the ordinary enemata of soap-suds and oil failing to act as before, enemata of ox-gall and water (℥j.–Oj.) were employed. But the patient steadily failing, all medicinal treatment was suspended, and milk and brandy per rectum substituted, under which she improved, and finally has some quite free natural passages from the bowels.

September 10th.—The patient decidedly improved under the brandy and milk; her vomiting stopped for several days, and she had voluntary passages from the bowels, but she is now failing again, gradually growing weaker, and the abdominal pains are returning. Sept. 12th.—The pains have been so severe that she has had to be kept under the influence of morphia continuously. ℥

September 13th.—The vomiting commenced again last night, the pulse failing, and the extremities becoming cold. At twelve midnight she died.

Autopsy.—The body was found much emaciated, and the color of the skin was a yellowish brown, much like that seen in Addison's Disease. No tumor in the abdomen was made out by palpation. On opening the *thoracic cavity* the apex of the right lung was found adherent to the wall of the chest, and there were some adhesions along the axillary line. In the upper lobe of the right was a small cheesy nodule, and around it a circumscribed pneumonia. The apex of the left lung also was adherent to the thoracic wall, and there was a moderate amount of diaphragmatic pleurisy. The *heart* was small and contracted, and there was slight erosion of the aorta. The *spleen* was small. The *kidneys* appeared quite normal, except some suspicious points which had very much the appearance of tubercles.

The *liver* was very small, weighing only two and a half pounds, and contained several deposits, some of which were as small as a millet-seed.

About four inches below the splenic curvature there was a notable displacement of the descending colon, and at that point also the intestine was firmly bound to the wall of the abdomen.

From the curvature, the gut descended in a normal manner for about four inches: then, turning upon itself, ascended one and one-half inches, where it turned at an acute angle, and passed downward; the sigmoid flexure and rectum were normal.

The constriction in the colon was so great at the point where the displacement had occurred, with adhesion to the abdominal parietes, that only the little finger could be passed through the flexed portion, and it was with some difficulty that air could be forced through, and only after prolonged pressure.

At the ileo-cæcal valve, a tumor was found. The ileum for a considerable distance above the valve was distended, its walls were very much thickened, and it was filled with fluid fecal matter, which contained prune, date, orange, and grape seeds. There were twenty-three prune seeds. The mucous membrane was extensively ulcerated; neither Peyer's patches nor the solitary glands, however, were particularly involved, but the ulcers had more of the appearance of the tubercular variety. Their long axis was transverse to the longitudinal axis of the intestine. In some instances, the mucous membrane alone was affected, while in others nothing except the serous coat of the intestine remained.

The tumor at the ileo-cæcal valve was about the size of an English walnut, and the calibre of the valve, although diminished, had not been encroached upon to such an extent but that the little finger could be pushed through it with some difficulty; the passage of foreign bodies like seeds would, however, be attended with great difficulty.

On microscopical examination, the tumor was found to be unmistakably carcinomatous.

The deposits in the liver were also carcinomatous. The mesenteric glands in the neighborhood of the caput coli were enlarged and infiltrated with the same kind of deposit.

Dr. Satterthwaite directed attention to certain points in the case which he regarded as specially interesting.

Tumors of the ileo-cæcal valve were rare, and carcinomatous growths affecting that structure were of the rarest occurrence. It was probable that the lesions in the liver could be correctly explained on the ground that they were secondary to the carcinoma in the valve. If the primary cancer had been in the liver, in all probability a very much greater amount of carcinomatous deposit would have been present, and the size of the organ increased.

What connection, if any, these lesions had with stricture of the descending colon, it was difficult to say.

The trouble about the colon seems to be the result simply of old peritoneal adhesions, and probably was to be classed among those *kinkings* of the intestine which were produced by slow inflammation that resulted in cicatricial tissue and union with the wall of the abdomen.

Dr. Post suggested that it might be possible the irritation produced by the seeds influenced the localization of the cancerous deposit at the ileo-cæcal valve. External traumatic irritation seemed to be a local cause of cancer, and perhaps those hard substances in the ileum might have been the exciting cause of the disease at the valve rather than elsewhere.

The President referred to a case in which, at post-mortem, an abscess was found in the right iliac fossa, and a cherry-pit was the foreign body supposed to have had something to do with its formation. Scirrhus of the peritoneum was also present. It was thought at the time the examination was made that the mental condition of the patient was the cause of the malignant disease, but that question was submitted to an expert in pathology, who said that it had nothing whatever to do with the development of the cancer.

Dr. Finnell gave an account of a post-mortem examination made at St. Vincent's Hospital, after which the Society went into executive session.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Oct. 7, to Oct. 13, 1877.

Sternberg, G. M., Major and Surgeon. To proceed to Fort Walla Walla, W. T., and resume his duties as Post Surgeon. S. O. 139, C. S., Dept. of the Columbia.

McClellan, E., Major and Surgeon. Assigned to duty as Post Surgeon at Fort Lapwai, Idaho T., relieving Surgeon Sternberg. S. O. 139, Dept. of the Columbia, Sept. 26, 1877.

Greenleaf, C. R., Major and Surgeon. Assigned to duty as Post Surgeon at the post to be established at Helena, Mont. S. O. 136, Dept. of Dakota, Oct. 8, 1877.

Brooke, J., Captain and Assistant Surgeon. Assigned to duty as Post Surgeon at Camp Howard, near Mount Idaho, Idaho T., relieving Assistant Surgeon Matthews. S. O. 139, C. S., Dept. of the Columbia.

Gardner, W. H., Captain and Assistant Surgeon. Relieved from duty at Allegheny Arsenal, Pittsburg, Pa., and assigned to duty at Atlanta, Ga. S. O. 232, Div. of the Atlantic, Oct. 6, 1877.

McElderry, H., Captain and Assistant Surgeon. Leave of absence extended fourteen days. S. O. 237, Div. of the Atlantic, Oct. 12, 1877.

Cronkhite, H. M., Captain and Assistant Surgeon. Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 109, Dept. of Arizona, Sept. 26, 1877.

Loring, L. Y., Captain and Assistant Surgeon. Granted leave of absence for one month, from Oct. 10,

1877, with permission to apply for five months' extension. S. O. 108, Dept. of Arizona, Sept. 25, 1877.

ELBREY, F. W., Captain and Assistant Surgeon. Assigned to duty as Post Surgeon at the temporary camp to be established at or near Spokane Falls, W. T. S. O. 139, C. S., Dept. of the Columbia.

MATTHEWS, W., Captain and Assistant Surgeon. To accompany Companies B and F, 12th Infy., to Dept. of California. S. O. 138, Dept. of the Columbia, Sept. 25, 1877.

AINSWORTH, F. C., 1st Lieutenant and Assistant Surgeon. When relieved by Assistant Surgeon Worthington, assigned to duty at Fort Whipple, A. T. S. O. 108, C. S., Dept. of Arizona.

WORTHINGTON, J. C., 1st Lieutenant and Assistant Surgeon. Relieved from duty at Fort Whipple, A. T., and assigned to duty as Post Surgeon at Camp Grant, A. T. S. O. 108, C. S., Dept. of Arizona.

ROBINSON, S. Q., 1st Lieutenant and Assistant Surgeon. Assigned to duty as Post Surgeon at the post near Missoula, Mont. S. O. 136, C. S., Dept. of Dakota.

DAVIES, W. B., 1st Lieutenant and Assistaut Surgeon. Assigned to duty at Fort A. Lincoln, D. T. S. O. 130, Dept. of Dakota, Sept. 26, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks euding October 13, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Oct. 6.....	1	25	42	3	8	65	0
" 13.....	1	26	40	2	3	49	0

One case of yellow fever was removed to Quarantine Hospital.

FEMALE EDUCATION.—The Board of Visitors of the University of Wisconsin condemn the system of coeducation in that institution, on the ground that it entails loss of health among the females in their efforts to keep up with their classes and overcome the physical frailties peculiar to their sex. The report concludes: "Education is greatly to be desired, but it is better that the future matrons of the State should be without a university training than that it should be procured at the fearful expense of ruined health; better that the future mothers of the State should be robust, hearty, healthy women, than that, by over-study, they entail upon their descendants the germs of disease. And there is no more certain law than that of heredity. The overwrought nervous system undermines the general health stealthily but certainly, and its evil consequences are prolonged in many cases through life."

CREMATION.—At the meeting of the *Conseil Municipal de Paris*, on July 3d, the discussion of M. Level's report on cremation was the order of the day. Article 1 of the project presented by the commission was finally adopted; it is conceived in the following terms:

"It is expedient to open a *concours* in order to ascertain the best process for cremating bodies, or any other process which will attain the same end.

"The process must conform to the following conditions:

"*a.* It must insure the transformation of the organic materials without the production of any odor, smoke, or deleterious gas.

"*b.* It must guarantee the identity and the preservation, complete and without admixture, of fixed substances.

"*c.* It must be expeditious and economical.

"*d.* It must not present any obstacle to the celebration of the religious ceremonies of any denomination."

The remaining articles of the project were referred to a commission, which is to consult with the Prefect of Police.

ALUMNI ASSOCIATION OF BELLEVUE HOSPITAL MEDICAL COLLEGE.—At a stated meeting of the Alumni Association of Bellevue Hospital Medical College, held at Delmonico's, on the 2d of October, the following officers were elected for the year 1877–78: *President*, John W. Pinkham (class of '66), of Montclair, N. J.; *First Vice-President*, Thomas W. Burchard (class of '72), of New York; *Second Vice-President*, James R. Taylor (class of '74), of New York; *Recording Secretary*, George W. Wells (class of '68), of New York; *Corresponding Secretary*, Edwin D. Morgan, Jr. (class of '70), of New York; *Treasurer*, William H. Katzenbach (class of '71), of New York; *Historian* (a permanent officer), F. A. Castle (class of '66), of New York.

The following *Council* was also appointed, according to a recent amendment of the constitution, to hold office permanently, each class being represented, so far as possible, by its own members, one of the two being resident in New York:

1862. Henry Raphael,	New York.	Jared W. Daniels, F. Wadsworth, Dak.
1863. F. A. Castle,	"	Alex. E. Jenner, Crestline, O.
1864. E. T. T. Marsh,	"	L. A. Kastenbein, Louisville, Ky.
1865. C. A. Leale,	"	W. D. Sweeney, Lexington, Ky.
1866. Le Roy M. Yale,	"	J. P. Wallace, La Fayette, Ind.
1867. E. C. Harwood,	"	J. T. Johnson, Washington, D. C.
1868. F. H. Bosworth,	"	E. M. Kerr, Fulton, Mo.
1869. G. H. Sweezy,	"	A. C. Graham, Dallas, Tex.
1870. Laurence Johnson,	"	A. M. Owens, Evansville, Ind.
1871. V. P. Gibney,	"	E. S. Bunker, Brooklyn, N. Y.
1872. J. H. Burchard,	"	D. W. Graham, Chicago, Ill.
1873. M. E. Tully,	"	J. R. Kinney, San Francisco, Cal.
1874. F. S. Dennis,	"	Rafael Young, Cuba.
1875. G. B. Hope,	"	W. P. Glover, Georgia.
1876. L. H. Sayre,	"	H. W. Rand, Nova Scotia.
1877. Geo. P. McCreary,	"	

Professor Lewis A. Sayre offered a prize of two hundred dollars for the best essay submitted by an alumnus of the college upon the Etiology and Pathology of Pott's Disease of the Spine, the award to be made by the professors of pathology in the Bellevue Hospital Medical College, the College of Physicians and Surgeons, and the Medical Department of the University of the City of New York.

REMEDY FOR BURNS AND SCALDS.—Dr. G. F. Waters, of Boston, recommends the use of bicarbonate of soda as a local application to burns and scalds. The soda must be sprinkled over the injured part, and a wet cloth applied over it. Under this treatment the pain is almost immediately relieved, and the healing process goes on very rapidly.

SCHOOL OF PHARMACY IN PARIS.—A large school of pharmacy is to be opened in Paris in 1880, capable of accommodating six hundred working students.

BELLEVUE HOSPITAL.—Dr. Leroy M. Yale has been appointed visiting surgeon to this institution, vice Prof. A. B. Crosby, deceased.

Original Lectures.

THE TRIGEMINAL NEURALGIAS.

A CLINICAL LECTURE DELIVERED AT THE UNIVERSITY HOSPITAL.

By H. C. WOOD, Jr., M.D.,

CLINICAL PROFESSOR OF NERVOUS DISEASES IN THE UNIVERSITY OF PENNSYLVANIA.

(Reported by Samuel M. Miller, M.D.)

We give the name neuralgia to pain of an excruciating nature, extending along the course of a nerve. This pain is paroxysmal in character, and returns with renewed violence after a longer or shorter period of temporary remission. Neuralgia, like diarrhœa and dropsy, is a symptom of a general or special disorder, rather than a disease proper.

The causes of this condition are various. Among them may be mentioned local disease of the neurilemma, such as hyperæmia and œdema, irregular menstruation, impaired general health, extremes of heat or cold, or pressure of a clot or tumor upon the nerve-trunk.

Neuralgia also frequently occurs during the progress of recovery from arsenical poisoning. The nervous system is generally in a state of profound depression, or nutritive inactivity, in this condition.

For purposes of convenience, we may divide neuralgias into two great classes, each class composed of several varieties. In the first class are all those forms of neuralgia in which the paroxysms of pain come on regularly, but at distant intervals. These forms are mostly symptomatic of several varieties of cachexia.

First.—There is the malarial form. This can generally be distinguished by the great regularity of the intervals between the paroxysms. The pain, which is usually felt at the supra-orbital foramen on one side of the face, comes on at a certain time every day. The history of malarial taint will aid in the diagnosis. The test treatment by large doses of quinia, thirty grains at a time, will determine conclusively the malarial origin.

Secondly.—We meet frequently with cases of megrim or migraine, the so-called hemicrania. This morbid condition is generally either connected with disturbed menstruation, or is hereditary in its nature. Where the menstruation is at fault the pain is commonly gastric. Hereditary megrim usually attacks the first branch of the fifth pair of nerves. The pain, which centres in the eye or brow, the supra-orbital or temporal fossa, is very acute. There is nearly always nausea or vomiting, which passes off in the course of a few hours. This form of neuralgia, commonly known as "nervous headache," can be easily recognized by the long intervals between the attacks, the location of the pain, the history of menstrual disorder or hereditary disease, and the occurrence of sick stomach after the pain comes on.

The *third* variety is the anæmic, chlorotic, or syphilitic, and is due to an impoverished, diseased state of the blood, anæmia, syphilis, or chlorosis. Sometimes the pain is localized in one of the branches of the trigeminus, sometimes in other nerve-trunks. The cause of this neuralgia is quite frequently, perhaps, over-exertion. The attacks are long and persistent.

Fourth.—Rheumatic neuritis, or facecache, is to be distinguished from periostitis by the locality of the pain. In some cases exploration will show that the periostitis is limited to some one tooth, which feels longer than the others, and has in fact been pushed bodily upwards above the level of its fellows by the inflammation at its roots. By tapping all the teeth in succession with a key, or the blade of your knife, you will finally strike a tender tooth. Local swelling, too, will usually be noticed in periostitis. The existence of rheumatic pains in other parts of the body will usually strengthen the diagnosis. There will in most cases be a well-authenticated history of exposure.

The *fifth* variety is due to toxic causes, such as lead or arsenic poisoning. The blue line on the gums or the characteristic signs of arsenical poison will easily separate this variety from the others.

Under the second group of neuralgias, those coming on in sharp paroxysms at short intervals, and generally as reflex inductions of peripheral irritation or centric pressure, we find three separate forms: tic-douloureux, anæsthesia dolorosa, and tic. These three forms usually go by the name of trigeminal neuralgias. The trigeminal is a nerve of both sensation and motion. By a smaller root, the gustatory, it also becomes a nerve of special sense. Therefore, either the sensation or motion, or both the sensation and motion of one side of the face may be affected through the branches of a right or left trigeminal nerve. The branches of this nerve are most exposed to neuralgic influences by reason of their passage through narrow canals or openings in bones, where they are readily compressed; and from the distribution of the nerve over a large cutaneous surface, more exposed to cold and changes of weather than any other part of the body. In trigeminal neuralgias the three special points of pain are the supra-orbital foramen, the infra-orbital foramen, and the mental foramen. These three are in one straight line in the face. If the neuralgia be limited to the first branch of the fifth pair, the pain spreads over the brow, eyebrows, and eyelids, and sometimes the eyes are attacked.

In tic-douloureux there is *both pain and spasm.* The causes of this form of facial neuralgia are usually peripheral in their origin, a decayed tooth, the pressure of a cicatrix upon one of the superficial nerve-branches, or local inflammation of the neurilemma. In some cases, however, the lesion may be centric, the pressure of a neighboring clot or tumor upon the nerve-trunk. In this form (tic-douloureux) the paroxysms are repeated at very short intervals; in some cases as many as five or six in the course of fifteen minutes, or even still more frequently. The sufferer will jump up and run round the room in his momentary agony. The late Dr. Pemberton, of England, is said to have stamped the bottom out of his carriage during one of these paroxysms of pain. Another doctor was caught making deep incisions in his face and applying the actual cautery. Frequent have been the attempts at suicide by sufferers from this dreadful agony; an agony which finally kills by wearing out the strength. The effect is generally limited to the nerve itself. In severer cases the mouth is drawn to one side, so that the saliva flows over the chin and neck. This saliva is altered in quality. In other cases the teeth chatter, the conjunctiva is injected, the tears flow freely, and a constant discharge from the nose is maintained. In very severe cases the course of the afflicted nerve is marked by a red line. The spasms may occur as often as once in every few seconds.

I bring before you, to-day, a typical case of tic-douloureux, whose history I will give you.

Case I.—I. B., aged fifty. Six months ago he first noticed a jerking and twitching, beginning at the

left mastoid process, and gradually involving all the muscles of the left side of the face and neck. At first, and throughout the continuance of the spasm, there was pain felt in the left auriculo-maxillary fossa. The pain and spasm were both violent for the space of one minute, the pain grew less, and entirely ceased at the end of another minute; in the course of several following minutes the twitching had also disappeared. When the attack first came on he had paroxysms at intervals of several days, but within the past month there have been very many paroxysms in very close succession—a dozen or more every hour. The patient, according to his own allowing, has been a moderate drinker. About twenty years ago he had an attack of gonorrhœa, which he thinks was entirely (?) cured. A year and a half ago he had an attack of rheumatism. He has had frequent touches of this since. There is no cardiac trouble; no sore points on pressure over any part of the body, and no spinal tenderness. Deep and hard pressure in the auriculo-maxillary fossa fails to cause pain. Once in a while the patient has only spasm without pain, and *vice versa*. His teeth are very imperfect. He states that the twitching and pain in his face cause at times an unusually large secretion of saliva, which is very tenacious, and exceedingly hard to expel from the mouth.

The above history illustrates nearly all the symptoms of tic-douloureux to which I have called your attention. It remains for us to determine whether this case of trigeminal neuralgia be centric or peripheral in its origin. The patient has been most carefully examined for a peripheral cause of the trouble, a local disease point, but without any result. I want to lay stress upon the absolute necessity of a most painstaking and minute examination of the surface of the face and of the mouth in cases of this kind, before giving a decision in favor of centric pressure. I remember the case of a woman who was brought to this city for treatment. She suffered the most excruciating paroxysmal pains about her jaws and round her head—it seemed at times as if her head were being bodily crushed in. The most minute examinations were made by various surgeons of this city for some obscure local point of disease, but without success. At last a minute orifice was discovered near a tooth. An incision was made, disclosing an opening into the antrum highmorianum. This incision was enlarged with the discovery that two nerves usually smaller than the finest hair had become swollen to the size of large bristles. Section of the two trunks was made above the point of swelling, and the pain disappeared at once to return no more.

No local disease spot can be found in the present case. This fact, joined with the observation that the *spasm usually comes on before the pain*, point quite conclusively to some centric point of pressure. The patient is an old man, and very probably there has been atheroma of the coats of his arteries leading to aneurism or rupture, and the formation of a clot near the origin of the left trigeminal nerve.

As regards the treatment of tic-douloureux—of course any peripheral cause of irritation may and should at once be relieved or removed. On the other hand, where the lesion or pressure is centric, the prognosis is far less favorable. Trousseau considers these cases epileptiform in character, and incurable. The treatment, which has been tried, has been that by a weak, interrupted current with the positive pole to the cervical spine and the negative pole to the auriculo-maxillary fossa, and *vice versa*. The patient says that he slept more easily after this treatment, but that it did not relieve the pain. Belladonna ointment and the application of the actual cautery upon two occasions have both failed. The patient has been put upon a routine treatment of iodide of potassium and the bichloride of mercury, with the possibility of a syphilitic origin of the disease. Everything has signally failed to do him any good. Our only resource is opium, which must be given in doses continuous and large enough to dull the agonizing pain.

So much for tic-douloureux. Anæsthesia dolorosa is a form of trigeminal neuralgia where there *is pain, but no spasm*. This form is usually caused by a central tumor or clot pressing upon the sensory fibres of the nerve near its origin, and producing at one and the same time pain at the nerve-centre or brain, and anæsthesia or loss of feeling at the periphery. Hence the name anæsthesia dolorosa. Accompanying these conditions is generally found a palsy of one or both of the limbs on the side of the body opposite to the anæsthesia; that is, the clot, or tumor, or aneurism being on the right side of the body at the base of the brain, the anæsthesia would be felt and the pain referred to the same side of the face, and there would be palsy of the left arm or leg, or both left arm and leg. All sensations of pain are generally referred to the periphery; this explains the peripheral sensation of pain in anæsthesia dolorosa.

Some time ago a very interesting case of anæsthesia came to this hospital for treatment. A history was taken of the man at that time, which I will now read to you.

Case II.—G. B. C., aged sixty-two; married; of temperate habits. About two years ago, immediately upon rising one morning, he had a severe attack of vertigo, attended with partial loss of power in the left leg. There was, however, no loss of consciousness. Under the use of a mustard foot-bath, etc., he got so much better that he was able to walk without much difficulty. At two P.M. on the same day he was cognizant of a very strange feeling in his left leg, and in a few minutes suddenly lost all power in that limb. The left hand was also slightly affected. With the loss of power of motion there was also a loss of sensation in the left leg, so that it could be immersed in boiling hot water without giving rise to any pain. The next day the patient had a very severe headache, with throbbing and a sense of bursting. Free venesection gave relief to this at once. During the next few weeks he regained power in his leg, and could walk quite comfortably with the assistance of a cane. At present there is distinct, but not perfect anæsthesia upon the upper surface of the foot and also upon the leg. Shortly after being bled, as above mentioned, he began to suffer from pain in the right side of the head. This pain has continued ever since with more or less severity. It interferes greatly with sleep at night. The pain is of a burning character. There are pain-points in the eyeball and in front of the ear. The pain does not change with changes in the weather. The man's general health is good. He feels sometimes as if there were a twitching of the muscles of the face, but there is no external, apparent spasm of these parts. The heart's action is slightly irregular, one beat in every twenty being dropped.

This case was evidently the result of a clot, which had been thrown out in a former attack of apoplexy, pressing on the roots of the right trigeminal nerve, just below the pons. This clot pressed on the sensory fibres of the nerve after decussation in the floor of the fourth ventricle, causing anæsthesia and pain referable to the right side of the face, but loss of power and sensation in the left arm and leg, sinc

the motor fibres of the cord upon which it presses decussate below the point of pressure.

The treatment of Case II. was by the continuous current. This was applied for from twenty-five to forty-five minutes at a sitting, and three times a week. This electrical treatment was temporarily successful only. The application of a blister to the ear also relieved for a short time, but afforded no permanent cure. A fluid drachm of a mixture containing half a drachm of croton chloral and six drachms of syrup was then ordered to be taken every night at bedtime. Phosphorus was prescribed in continuous doses, but still there was no permanent respite from the pain. The electric brush was applied frequently to the left leg, and twenty drops of chloroform were injected into the right side of the face. Still nothing but ephemeral relief could be had. The patient has returned several times to the dispensary, but no real improvement has yet shown itself in the case. You see how utterly powerless we are, with all our present knowledge put into practice, in hindering the regular course of this dreadful and obscure affection.

I have called your attention to the states known as tic-douloureux and anæsthesia dolorosa, and endeavored to illustrate for you by cases these two forms of trigeminal neuralgia. There yet remains a third to be mentioned. Simple tic, where there is *spasm* but *no pain*, is an exceedingly rare affection. No decided case of tic has lately come before our notice. The causes which may produce this abnormal condition are in general the same as those of anæsthesia dolorosa.

Original Communications.

THE ETIOLOGY OF DYSMENORRHŒA CONSIDERED IN RELATION TO A NEW MECHANICAL PLAN OF TREATMENT.

By G. E. SUSSDORF, M.D.,

NEW YORK.

A REVIEW of the opinions entertained, in the past and present, respecting the etiology of dysmenorrhœa, though interesting, and important to a certain extent, in its bearing upon this subject, comprehends too great a field to be introduced in this paper, which is only intended to be a preliminary description of a new mechanical plan of treatment, which I have been recently practising with encouraging success, and which, so far as I am aware, has never before been attempted.

The cases treated are as yet comparatively few; consequently there are some phases of the disease in which it has not been tried; but in those which have been treated the results are sufficiently satisfactory to justify at least a description of the treatment, even at the present stage of my experience, reserving for another occasion the narration of cases, and a full consideration of the subject.

It is necessary to a proper comprehension of the operation of the means used, that an outline be given of the grounds I take respecting the etiology of dysmenorrhœa, as a basis for the treatment here proposed.

This general statement I believe none will dispute: That in a large majority, if not in all cases of dysmenorrhœa, there is more or less impediment to the flow in some parts of the canal of the cervix uteri.

The following statements I consider true also: That only in a small number of cases is the obstruction, or stenosis associated with or the result of a pathological state of the mucus and interstitial tissues of the cervix.

That in most cases the obstruction or stenosis is apparently unconnected with inflammatory or other *evident* pathological conditions of the tissues of the uterus or its cervix.

For the sake of convenience I shall divide the etiology of dysmenorrhœa into two classes, in accordance with the statements above made.

Those in which organic disease of the uterus or its appendages can be recognized by physical examination during the interval between the menstrual periods, and those in which no appreciable pathological conditions can be detected in these organs during the menstrual interval.

In the first class the following local pathological states may be enumerated as causes: Ovaritis, pelvic cellulitis, pelvic peritonitis, peri-uterine cellulitis, fibrous tumors, subinvolution, areola-hyperplasia, endometritis, polypi, fibroids in the cervix, inflammations of the cervix, and perhaps also displacements.

In the second, the following general pathological conditions of the system act as causes: Anæmia, chlorosis, plethora, rheumatism, gout, malaria, the cachexias, and syphilis, habits which debilitate the muscular and nervous systems, dyspepsia, a neuralgic diathesis, emotional temperament, mental disturbances, and, locally, congenital lack of development and malformations.

To this last class of cases, in which no recognizable disease of structure can be found in the tissues of the uterus or its cervix, I desire to call attention, and to state what I regard as the immediate or exciting cause of the dysmenorrhœa.

This I believe to be an active neurosis of the uterine system of nerves, inducing spasmodic action in the muscular fibres of the uterus, and especially in the *circular fibres of the cervix.*

This theory is not new; it has long been held by many gynecologists. Among those who earliest advocated this view was Dr. Bennet, who previously demonstrated the existence of a sphincter at the internal os. At this time a large number of the profession generally have adopted these views also.

There are many reasons for believing that the cervical muscular fibres contract spasmodically under certain conditions. This is in a measure proved by analogy. It is a well-known fact, as has often been cited, that the circular fibres of the outlets of other organs contract spasmodically and produce temporary stricture, as, for example, the œsophagus, the urethra, the rectum, the bronchi in asthma, and trachea in non-inflammatory croup. But I propose to go a step further in respect to dysmenorrhœa.

The active neurosis of the uterine nerves excites temporary spasm, but it does more—it establishes a morbid, vicious habit of contraction, which remains, in most all cases, after the disease which caused it has been removed. This is in many cases true of those of local pathological origin, as well as those resulting from systemic causes.

As normal menstruation becomes established, as a consequence of the physiological development of the organs of generation, and continues as a habit after these organs are matured, so also may the healthy performance of the function of menstruation become deranged, and a vicious habit result, as a consequence of interrupted development or impaired nutrition of these organs.

From considerable study of dysmenorrhœa, I have come to adopt these views respecting its etiology, and

to regard organic stricture or stenosis of the cervical canal as much less common than we have been taught to believe.

In the local treatment of dysmenorrhœa, the plan as generally pursued is to enlarge the narrow canal. To remedy the construction is to cure in a great measure the disease. Common experience teaches this. To effect this is by no means an easy matter. The instruments generally used to open the canal give no satisfactory results—indeed, they frequently fail altogether—and soon, from disappointment in their use, they are severally abandoned.

I refer to sponge and sea-tangle tents, to bougies, and expanding metallic instruments, of which there are a great variety.

From the time that dilatation was first practised, sponge and sea-tangle have been in use. Some find them answer a good purpose, while others have discarded them as dangerous. As regards sponge-tents, this prejudice I believe is well founded, and the various other instruments, though ingenious, cannot accomplish permanent benefit, because they cannot be used conveniently at the proper time, as will appear further on. In many instances, those who have been disappointed in the plan of treatment by dilatation, as usually pursued, have adopted the plan by incision and division, and have extended its application to all cases of narrowing. Notably among those in this country who claim that the knife is more effectual and less dangerous, is Dr. Marion Sims, whose opinions are certainly entitled to great respect. I do not wish, however, to touch upon this point, or to enter into a consideration of the relative merits of incision and dilatation, except to say that, according to my observation, the cutting operation should generally be limited to cases of organic stricture, cicatrices, tortions of the canal, and to some cases of flexion.

In most all other cases the dysmenorrhœa is not dependent upon disease of stricture, but is a consequence of a morbid, spasmodic habit of function.

The knife can accomplish no change in the perverted function, unless the integrity of the circular cervical fibres is destroyed; there must be a solution of continuity. To effect that, is to mutilate the organ. Even then the opening contracts again in many cases, and the dysmenorrhœa returns as bad as ever.

Why dilatation has failed in many cases to give good and lasting results, is a question not easily answered, still I think two factors have had much to do with it, viz.: unsuitable instruments for effecting dilatation, and an incorrect application of the means to the end. I have already intimated my objections to the instruments generally used. It is not necessary to repeat them here. I refer especially to sponge and sea-tangle. In the number of this journal for July 14, 1877, I described a new material for dilating purposes, tupelo (*Nyssa aquatica*), which I think admirably calculated for that purpose. It is safe and reliable, and much more rapid in its action than sea-tangle, and has never in my hands excited pelvic peritonitis or cellulitis. This is important. The incorrect application of the means to the end is the secret of its failure in most cases.

The cervix is very elastic and capable of great distention; it will return to its original condition very soon after the distending force is removed. Dilatation, therefore, by the ordinary means, does little more than temporarily stretch these tissues; it is seldom that it remains so longer than a few days. The idea that enlargement of the canal alone effects a cure is an error. It is not necessary to normal menstruation that the calibre of the canal should be large, since we know there are many persons with a small canal who do not suffer from dysmenorrhœa, and others with a large one who do, and furthermore, a comparatively small opening is sufficient to carry off the menses, even in large amount, provided there is no obstruction to a continuous flow.

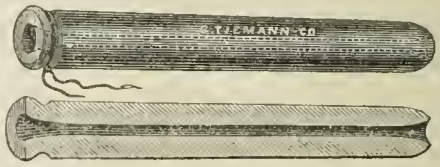
Actual enlargement is only necessary when the canal is narrowed by organized adventitious tissue.

The end to be attained in treatment is not enlargement of the channel *per se*.

The object should be to arrest and correct the spasmodic action, the morbid habit of contraction in the uterine and cervical muscular tissue.

Will dilatation accomplish this object? From present experience with the instrument represented here, I believe it will to a great extent, if applied in the manner I propose.

An important point in this plan of treatment is the *time* at which the dilatation should be effected. By the ordinary tents this can only be effected during the interval between the menstrual flow; by the instrument I use, it can be done just before and during the flow itself. The time at which the morbid habit of contraction shows itself is the time measures should be taken for its correction. The rule should always be observed; it is essential to success; it is the basis upon which rests the application of the principles called into action by this instrument.



The principles combined in this instrument are *expanding force* and *drainage*.

The expanding force of the tupelo insures dilatation of the canal and a consequent stretching of the cervical tissue. This is necessary, because there must be expanding force in operation at the time the morbid tendency to contract—the spasmodic action—comes on. An antagonistic power is thus brought to bear which arrests the spasm, and gives a normal direction to the action of the circular fibres of the cervix, which is that of *relaxation at the time of the flow*. This effect of dilatation is obtained to a limited extent by solid tents, when applied during the interval, and has usually been designated an *alterative effect*—but this is soon lost, as already stated, and as experience proves. By this instrument a powerful alterative impression is produced, which is never entirely lost.

In the centre of the tupelo dilator a small tube is placed, funnel-shaped at each end. This tube admits of the passage of the menses; otherwise dilatation could not be made at the periods—this is self-evident. At the same time that it admits of the easy escape of the fluid, it relieves the uterus and its appendages of irritations usually excited by the retained menses, and this, too, in the very beginning of the periods. The congestion of the deep-seated uterine blood-vessels, as well as the engorgement of those of the internal surface, are thereby relieved, and equably depleted, no matter whether the menstrual molimen be the simple hemorrhage of Cullen, or an exfoliation of the mucous lining of the uterus, as the investigations of Dr. John Williams seem to show. Much more might be said on all these points, but I have already extended my paper too much. I will only add a few details respecting the time and manner of using this instrument

Having diagnosed the case *non-inflammatory* in nature, and having carefully learned the time the pain begins and the flow comes on, local treatment should be instituted from sixty to forty-eight hours in advance of the expected period.

A solid tupelo tent should first be used, that will easily pass into the cavity of the womb; it should not have an expanding power greater than three-eighths inch diameter. This tent should be allowed to remain for ten to twelve hours, and then removed. This preparatory treatment tests the susceptibility of the uterus to irritation, and opens the cervix sufficiently to admit the drainage-tent.

There are some cases so inflammable that the least interference, even the passage of the sound, will excite trouble.

After the removal of the solid tent the parts should be allowed to rest until, as near as can be calculated, a few hours before the pain or flow comes on, when the drainage-tent should be introduced, and allowed to remain *in situ* from twelve to twenty-four hours, and then taken away. Sometimes at first its presence causes pain, but this usually lasts but a short time; should it continue unusually severe, the instrument may be removed by the patient. When the cervix touches the floor of the vagina, a ring pessary should support the uterus, and lift it sufficiently, so that the exit of the flow from the vaginal end of the tube will not be interfered with, else coagulation at the internal end might occur, and the instrument be expelled by the contractions of the womb. The instrument is usually self-retaining if care be taken to keep the patient in the recumbent position. As just stated, pain may be complained of the first time the instrument is introduced. This may be prevented in a great measure by covering the surface of the instrument with a preparation of sulph. morphine, or ext. belladonnæ, as follows:

℞. Morphia sulph., gr. ½ to ..... gr. ij.
Pulv. sapo alba Castili..... gr. ij.
M.

℞. Ext. belladonæ gr. i. to..... gr. ij.
Pulv. sapo alba Castili..... gr. ij.
M.

Or dry morphia sulph. alone may be used.

This is quickly absorbed.

The length of the instrument should generally be about one and three-fourths inches, or just long enough to pass the internal os; it should not project much into the uterine cavity.

In ordinary and recent cases it will not be necessary to introduce this instrument more than twice, the second time usually at the next period following but one. In old and obstinate cases, however, it may become necessary to use it oftener.

It is always advisable to give such general constitutional treatment during the intervals as is calculated to correct the dyscorea, and during the periods anti-spasmodic and anodyne remedies to relieve prominent nervous symptoms. Electricity may be used with advantage in some cases during the interval.

In conclusion, this question may be asked: Is not the instrument likely to excite inflammation when left in the cervix during the flow? I think not. It has never done so in a single instance thus far. The danger from tents is greatest before the flow comes on, when the blood-vessels are engorged; not during the flow, for this relieves irritation and engorgement, and prevents inflammatory reaction.

Here I shall let the matter rest for the present, believing that further experience will add other evidences of the correctness of the views here expressed respecting the etiology and mechanical treatment of dysmenorrhœa.

44 West Twenty-Third Street.

REPORT OF A CASE OF SEVERE INJURY OF THE FACE—FRACTURE OF THE BONES OF THE NOSE AND DESTRUCTIVE INJURY OF THE EYE, WITH REMARKS.

By JOHN D. NEET, M.D.,

VERSAILLES, KY.

In the Medical Record for Sept. 1, 1877, No. 356, Dr. S. C. Bull reports some very interesting cases of "Fracture of the Bones of the Face." The following case recently in my care involves certain points of surgical interest similar to the cases alluded to, and has seemed to the writer to be of sufficient importance to merit the following report:

On June 12, 1877, I was summoned to W. B., a boy æt. 12 years, being informed that he had been kicked in the face by a horse. I reached him one hour after the accident, and found him free from concussion or other constitutional disturbance, with a severe compound comminuted fracture with depression of both nasal bones, a depressed fracture of the nasal process of the right superior maxillary bone, and fracture of the nasal spine of the frontal bone. The soft parts were so lacerated and contused that my first impression on looking at the patient was, that there was entire destruction of the nose. Complicating this extensive injury was a laceration through the entire thickness of the right upper lid, half an inch in length, and a rupture of the ball of the right eye, running horizontally, and extending from the centre of the cornea to within two lines of the outer canthus. Through this opening the lens was seen protruding.

On account of the displacement of the broken bones, great difficulty was experienced in passing an instrument through the left nostril to the pharynx, while on the right side this effort was entirely without success. After removing two or three small fragments of bone and thoroughly cleansing the parts—hemorrhage having been free—with the assistance of Dr. Willis (the regular attendant), Dr. Layton, and Mr. Stitt (medical student), we proceeded to adjust the broken fragments. Considerable time and patience were expended in the satisfactory adjustment of the pieces, and the soft parts were then brought together with fine silk suture, and a cold compress applied. This being done, the eye received our attention. The lens, which was already protruding, made an easy escape by slight pressure on the ball, and was not followed by prolapse of the iris, capsule of the lens, or escape of the vitreous humor. A few drops of a solution of atropine (gr. ij. to f. ʒ i.) and a wet compress were applied. Symptoms of irido-choroiditis supervened on the eleventh day, ending in destruction of the eye.

Repair in the nose, however, progressed quite satisfactorily, excepting a slight slough of the free border of the right ala of the nose, and a small fistulous opening half an inch below the inner canthus, on the line of the naso-maxillary suture. The patient was discharged July 23d, with an excellent stump for an artificial eye, movement being perfect in every direction, and repair was complete in the nose, with the exception of the fistulous opening previously mentioned.

On August 5th a small piece of necrosed bone, one-fifth of an inch long and one-seventh wide, was re-

moved through this fistulous opening, which has since healed, and at this writing (Sept. 22d) the patient is apparently perfectly well.

In connection with this case there are three points of special interest:

1. The period of time that intervened from the day of the injury to the date of the supervention of symptoms of irido-choroiditis, being *eleven days.*

Previous to the sudden accession of these symptoms, the patient did not complain of any special inconvenience referable to the eye; but, in view of the pronounced contusion which it and the neighboring structures necessarily suffered, we would have rationally expected an early advent of this serious condition. We believe, however, this patient would probably have escaped it, had not the granulations of the cornea become adherent to those of the lacerated lid, causing irritation, active congestion, and the rapid development of a suppurative panophthalmitis. That this was the exciting cause of the attack no one could gainsay; for when I saw him on the 23d of June with the regular attendant (this being my first visit since the 14th), this union was so firm as to require a cutting operation to liberate the parts. (From this date the patient was under my individual care.)

Whether the attack of irido-choroiditis was delayed in any way by the early application of the *atropine* I do not assert; but from its known physiological action, viz., to dilate the pupil, diminish congestion, intraocular tension, and its further action as an anodyne, we see the rational propriety for its use upon strictly prophylactic principles, and it may have so acted in this case. From the fact that there was no evidence of irido-choroiditis until the eleventh day, is proof conclusive that the period when the disposition of the eye to take on active inflammation was greatest had been bridged over, and that it was only by the continuance of some source of irritation that the processes of repair gave way to those of waste and disease at the end of the eleventh day.

2. The limited necrosis following such marked comminution of the ossa nasi.

Aside from the two or three diminutive fragments removed when the parts were dressed, there was a loss by *necrosis* of a single piece of the meagre dimensions already mentioned.

Speaking of the circumstances laid down by various writers which are apt to result from fractures of the ossa nasi, including necrosis, fistula lachrymalis, etc., Hamilton, in his "Treatise on Fractures and Dislocations," says: "And it is certain that such consequences have occasionally followed; but they must generally be regarded as accidents due to the state of the general system, and as having no connection with the fracture, except as this injury served to awaken certain vicious tendencies."

That this passage will meet with unqualified acceptance I doubt very much, unless it has reference to simple and single fractures; for many are the well-attested cases in which necrosis has followed comminution of the nasal bones, when there was no reasonable supposition of the existence of a constitutional taint or diathesis. Instead of assigning such an occurrence to the category of scorbutic, scrofulous, or syphilitic manifestations with positive assurance, it seems to me that we are licensed to say that the necrosis stands in a causative relation to a factor which has interfered with the nutrition and constructive metamorphosis of the part, and instituted certain localized conditions, which, although inappreciable to the unaided eye, are destined to produce destructive organic changes. In recognizing the supremacy of local causes in the majority of these cases, we should not lose sight of the fact and ignore the influence and power of certain cachexiæ to produce like results, especially when called into action by an exciting cause of local origin. In a young and healthy subject, where the acme of the reparative type is represented, and where other favorable conditions for rapid repair of injuries in this locality are fulfilled, the extent of necrosis will depend primarily upon the degree and kind of injury, and secondarily upon the blood state pre-existing or induced by the local disease.

3. The absence of obstruction or obliteration of the nasal duct and dacryocystitis.

This is certainly the most noteworthy feature of the case; and when we recall the extent of the injury and depression of the bones, we could scarcely have expected to escape obliteration of the nasal canal; but its prevention seems to have been due to the fact that, in the effort to prevent it, and to give more prominence to the bridge of the nose than was natural to the subject (before the accident the bridge was very low), the broken nasal process of the superior maxillary bone was elevated above its normal plane and drawn towards the mesial line, with the effect of causing the space between this bone and the lachrymal bone to be increased, and consequently increasing the transverse diameter of the nasal duct. The necessary manipulation required here can, of course, only be made in cases of compound fracture; and since more or less deformity usually follows fracture of the bones of the nose, even at the risk of *producing* slight deformity, an effort should always be made to so elevate the broken fragments as that there shall be the least possible or no encroachment upon the nasal canal.

The established rule in surgery in reference to making compound of simple fractures does not apply here, for a compound fracture in this locality does not differ materially in result from a simple fracture, and certainly does not necessitate the consequences which are the dread of the surgeon in compound fracture of the long bones. In a case of simple depressed fracture of the nasal process of the superior maxillary bone obliterating the nasal canal, I would not hesitate to cut down upon and elevate it, rather than incur the long train of formidable symptoms that constitute the opprobrium in the management of these depressed fractures. Upon the principle, too, of the "least sacrifice of parts," this operation is warranted; for, contrariwise, after many operative procedures — both dilating and cutting—we have to resort finally to destruction of the lachrymal sac (as in Dr. Bull's cases), which, besides being sacrificial, entails much pain and prolonged suffering. I do not believe there can be any comparison made between the course usually pursued and that just referred to; and while my experience does not entitle me to speak authoritatively upon the subject, I think we are justified in practising an operation that promises to avert the consequences of an obstructed nasal duct and an inflamed lachrymal sac. We do not disdain to make a compound of a simple depressed fracture of the skull when there is abrogation of function; then why should we not do the same when there is abrogation of function consequent upon a depressed fracture of the nasal process of the superior maxillary bone?

"If, in consequence of a blow received upon the ossa nasi, the nasal process of the superior maxillæ are broken down, they may be lifted and adjusted in the same manner as the ossa nasi." (Hamilton.) In many such cases the fragments are so deeply depressed and impacted, that the elevating force brought to bear upon them from the nares is insufficient to properly

adjust them, and the operation of cutting down upon and elevating the broken bone is imperative if we would escape the consequences that would otherwise follow. The deformity in the above reported case is inconsiderable; in fact, the patient thinks he has a more "becoming" nose than before the accident, and there is no obstruction in the nasal or lachrymal passages.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

Adhesion of serous membranes—illustrative case.

A male patient, æt. forty-eight years, had a severe attack of typhoid fever about twenty-five years ago. Previous to that sickness he was a healthy man, and subsequent to that date had had very good health, with the exception of occasional attacks of insomnia. This insomnia had led to headache and total inability to engage in any mental exercise until he had given his brain a certain amount of as nearly absolute rest as possible. His habits were correct. Since the attack of typhoid fever, however, he had not been able to sleep as well as before, nor had he been able to endure much excitement.

The question was asked, why should there be left upon the brain such a trace of the typhoid fever? The answer was, that it was doubtless due to extensive adhesions between the calvarium and the brain with its membranes.

Such a condition was believed to be of not infrequent occurrence in connection with typhoid fever, and that the persistent irritation and congestion of the cerebral convolutions, in consequence of such adhesions, sometimes led to epilepsy and frequently to insanity. The same condition was present as when a pachymeningitis followed fracture of the skull; the patient was liable to suffer from cerebral trouble at some future date.

Questions relating to bronchitis, pleurisy, and phthisis—important clinical fact.

The case before us was one of ordinary chronic bronchitis, but certain questions were asked and answers given which were regarded as somewhat interesting.

In the first place, does bronchitis produce pleurisy? There is no causative connection between the two diseases.

Does phthisis give rise to pleurisy? Almost invariably, either at the very beginning or after the phthisis had advanced somewhat. Some have claimed that the first step in the development of phthisis is pleurisy. The truthfulness of this statement was doubted by the visiting physician, but it was believed that pleurisy is an element in phthisis in a large proportion of cases, and from the very commencement.

Why are pleurisy and phthisis so frequently associated? Because phthisis most commonly involves that part of the lung, the apex, which comes nearest to the pleura, and the inflammation is readily propagated from the former to the latter.

Inflammation affecting the parenchyma of the lung does not give rise to pain; pain is a prominent symptom of pleurisy.

Why does pleurisy give rise to pain? It is not because the pleura is more sensitive than lung-tissue, but by the movements of respiration traction is made upon the surface affected, perhaps adhered by inflammation, and pain is thus produced. The movements of respiration do not produce pain when the pleural surfaces are in a healthy condition; but when they become inflamed and adherent to each other, pain of a sharp, stabbing, intermittent character is produced, and depends directly upon a local cause. The consumptive patient, who has pleurisy, will point with the *finger* to the painful locality; whereas the pain attending bronchitis is rather a sense of diffused soreness, analogous to the diffuse soreness through the bowels accompanying diarrhœa, and its location is referred to by using the *entire hand*.

Does bronchitis occasion ulceration? Only in very exceptional cases. Therefore, although an immense quantity of pus may be secreted and expectorated, it is produced upon a mucous membrane the surface of which is unbroken.

What clinical difference between phthisis and bronchitis results from this fact? The expectoration of a pint of pus in bronchitis is not attended with as much systemic effect as the expectoration of a very small quantity in connection with phthisis; and the reason is the pus, although it may be decomposed, is not so readily absorbed, because of the intact condition of the mucous membrane in the bronchitic patient.

Hectic does not accompany simple bronchitis, notwithstanding the immense quantity of pus which is sometimes secreted. On the other hand, hectic will be developed in a case of phthisis where only a comparatively small amount of pus is secreted, if there is no barrier set up to prevent its absorption. Pyæmia is developed where there is no limiting membrane; hence, as soon as a simple bronchitis becomes a peri-bronchitis, all the results of phthisis may be developed.

Some pathologists maintain that phthisis commonly arises from bronchitis. They say that a person first has a catarrh which extends into the bronchial tubes, a peri-bronchitis follows, broncho-pneumonia is developed, and then phthisis.

Exception was taken to this view, because, if true, phthisis should be developed upon both sides at the same time, inasmuch as ordinary catarrhal bronchitis, as a rule, involves both lungs. If there is any fact in the history of phthisis which is more prominent than others, it is that only one lung is involved at the commencement of the disease; indeed, only a small portion of the lung is affected, and the limitation can usually be distinctly mapped out. It is an important clinical fact that frequency of respiration bears no such relation to bronchitis as it does to phthisis. A great amount of bronchitis may be present, and yet not be accompanied by any increased frequency of respiration. A greater length of time is required for the air to make its entrance and exit in bronchitis than in phthisis, because of the want of elasticity in the lung in expiration, and usually there is more or less obstruction to inspiration; the patient perhaps labors for breath.

Increased frequency of respiration was regarded as one of the earliest symptoms of phthisis—the disease, although limited in extent, giving rise to a more frequent respiration than is seen in a bronchitic patient, with lungs over which all kinds of auscultatory signs can be heard.

Lotion for contusions—how to get rid of a blackened eye.

If one is so unfortunate as to get hit on a peeper, it

is said that the effects can be removed within two or three days in the following manner: If there is much pain, foment the parts continuously with simple *hot* water until it ceases, and then keep the contusion constantly wet with the following lotion:

℞. Muriate of ammonia..... ʒ ij.
Vinegar,
Water..... āā ʒ ij.
M.

Progress of Medical Science.

Early Syphilis in the Negro.—In a paper read before the Baltimore Clinical Society, Dr. Atkinson pointed out some interesting peculiarities of early syphilis occurring in the negro. The whole number of cases analyzed was one hundred, of which forty-five presented the primary lesion; during the same period of observation but twenty-four cases of chancroid were observed. The chancres were marked by extensive ulceration, abundant secretion of pus, and considerable tenderness. The specific induration varied, was not unfrequently obscured by inflammatory infiltration, and in vulval chancres was commonly absent. The indurated inguinal glands were remarkable for their immense size, great tenderness, and liability to run on to suppuration. Suppuration of the cervical and submaxillary glands was observed in eight cases. Of the eruptions, the papular was the most frequent; at first the papule is of a darker, later of a lighter hue than the rest of the skin. Rheumatoid pains, synovitis, and iritis were observed much more frequently than is the case with whites. All these variations Dr. Atkinson traces to the influence of the scrofulous diathesis, which he declares to be present in the majority of negroes, especially where there is an admixture of white blood. The diathesis delays, but does not prevent recovery, and induces a marked predisposition towards the return of symptoms rendering necessary the exercise of constant vigilance.

Subcutaneous Section of the Humerus.—In the transactions of the College of Physicians of Philadelphia, Dr. Mears reports a case of old dislocation of the shoulder in which subcutaneous section of the humerus was practised with immediate and lasting benefit. The instruments used were the tenotome and saw devised by Mr. Adams for subcutaneous section of the femur. The knife was entered on the outer side of the arm, two inches below the acromion process, and the periosteum divided; the knife was then withdrawn, and the saw introduced. After division of the bone the arm was secured in the Velpeau position. The wound closed, without suppuration, in three days, and on the tenth day passive motion was begun. The pain ceased immediately after the operation, and did not return. An examination some months later showed the formation of a very useful joint, with marked improvement in the motions of the hand, and gradual return of the strength of the arm. Dr. Mears reviews hastily the dangers attending attempts of reduction of old or chronic luxations, and concludes his paper by recommending this operation as simpler, safer, and more successful.

Period of Maximum Birth-rate.—Prof. Landis, of Starling Medical College, has tabulated the hour of birth in three hundred consecutive cases of labor at full term, with the view of obtaining the period of maximum birth-rate. The result gave the maximum rate from 5 to 8 A.M., and a second rise from 6 to 11 P.M. The minimum rate was from 8 to 9 A.M., and 11 to 12 P.M. The rate from 6 P.M. to 6 A.M. exceeded the rate for the remainder of the twenty-four hours by 13¼ per cent. From this small number of cases the Professor hesitates to draw any positive conclusions, but suggests the possibility of solar and atmospheric influences having some power in determining the period of activity for the uterus; he considers it probably more influential in terminating intervals of inertia, than in exciting the primitive contraction.—*Phila. Med. Times*, Sept. 1, 1877.

The Metastasis of Tumors.—Unsuccessful attempts have often been made to inoculate animals with fresh pieces of sarcoma and carcinoma. In consequence of this want of success, Drs. Cohnheim and Maas determined to try the effect of inoculation with a physiological substance whose reproductive capacity after removal from its natural site is well known, namely, periosteum. Small pieces of periosteum were cut from the tibiæ and introduced into the venæ jugulares of hens, which were killed in from three to twenty-seven days. Up to the sixteenth day the piece of periosteum could be felt as a hard mass in the pulmonary parenchyma, but after the twentieth day external examination of the lung failed to reveal the site of the foreign body. This was found in the pulmonary artery, rolled up into a solid cylinder. In specimens examined from 3 to 5 days after the inoculation, the piece of periosteum was found simply thickened, more resistant, and permeated with migratory cells. In from 10 to 12 days, hyaline cartilage cells were found on the inner surface of the periosteum; on the 15th or 16th day, true bony lamellæ were always found. New vessels grew into the periosteal embolus from the vasa vasorum, exactly as they do in an ordinary embolus, but the arterial walls took no part in the changes, beyond the development of vessels. After the 20th day, the periosteal embolus was much shrunken, and no traces of ossification could any longer be discovered, and at the end of a month the embolus had entirely disappeared.

These experiments demonstrated both that isolated bits of tissue can grow and proliferate within the blood-vessels, and that the healthy organism is capable of separating and removing from the body such substances. From them the experimenters deduce the theory, that individuals who suffer from generalized tumors must be wanting in this capacity to remove superfluous substances. They claim that a tumor is not in itself malignant, but that it becomes so only when it affects an individual, whose resisting capacity is reduced below the normal point. The constituents of all possible sorts of tumors must certainly often find their way into the blood-vessels, and more especially into the lymphatics; but as long as the nutritive changes in the individual are carried on with the normal energy, this accident is perfectly harmless. When, however, the resisting power of the organism is diminished from any cause, the tumor can extend into neighboring tissues and form metastases. It is asserted that this hypothesis explains the generalization of so-called benignant tumors, the sudden commencement of growth in tumors that have long remained sharply circumscribed (in the mamma), and finally the generalization of a tumor in a single tissue or system (carcinomatous metastases in various bones, complicating carcinoma of the breast). Finally, it is claimed that this hypothesis explains the want of success in the inoculation of healthy animals with carcinomatous masses.—*Centralblatt für Chirurgie*, August 4th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE INTERNATIONAL MEDICAL CONGRESS AT GENEVA.

The organization of the fifth session of the International Congress of the Medical Sciences, held at Geneva, Switzerland, last month (September 9 to 15), as well as the range of topics discussed, presents some features to which it may be well to call the attention of medical societies in this country. This is especially true as concerns those features which are essential to the rapid transaction of routine business and to the utmost efficiency of the several sections in their special departments of scientific inquiry. A committee of organization, supported by five sub-committees, and sixteen by-laws of two or three sentences each, map out the business and order of the session; limit its duration to one week; prescribe a payment of twenty francs, in return for which each delegate receives a copy of the transactions of the congress, and put the members in possession of all the information required to take an intelligent interest in the proceedings. The division into sections, each section reporting to the assembly at large, was at once simple and comprehensive. First in order, of course, comes the section of medicine; then, that of surgery; thirdly, that of obstetrics and gynæcology; fourthly, the section of public medicine, a department of investigation to the importance of which the medical societies of the United States have given brilliant testimony during the present year. The biological section, with its more general range of physiological researches, stands fifth on the list, and is followed by the very special section of ophthalmology, otology, and laryngoscopy. A carefully prepared programme of the session, seance by seance, put both members and the general audience *au courant* with the order of business for each day. The opening day was, as a matter of course, given up to gratulatory discourses delivered by officials; and then, from day to day, a series of important papers were read and discussed in full congress, the several sections pursuing their work as independent organizations. A glance at the titles of some of these papers will best illustrate the scope and methods of European medicine. Prof. Broadbent, of London, submitted a paper on Cerebral Localizations; Prof. Lombard, of Geneva, on Malaria in Europe and North America; Prof. Schiff, of Geneva, on the Function of the Spleen; Prof. Hardy, of Paris, on Parasitic Affections of the Skin; Prof. Bouclard, of Paris, on the Causation of Typhoid Fever; Prof. Vogt, of Geneva, on the Entozoa of Man.

The same minuteness, with a view to facilitate intelligent discussion, was carried into the section programmes, each member being supplied with a sub-programme in pamphlet form, specifying the questions raised by the papers to be read, giving the main conclusions of the author, carefully classified, and appealing to the members for verifying facts in instances where the author had been unable to arrive at a definite conclusion. For instance, in default of facts demonstrating the direct contagion from man to man of typhoid fever, Prof. Bouclard asks for facts tending to establish the mediate noxiousness of the excretions and other waste matter from typhoid patients, and for facts relative to the air and water poisoning associated with that disease. In the same manner, Prof. Revilliod's leading conclusions as respects diphtheria are specified in the programme, and facts tending to establish disputed points are solicited. Or, again, in the section of public medicine, Prof. Magnan, of the Hôpital Sainte-Anne of Paris, states his salient conclusions on the Influence of Alcoholism upon Mental Diseases; or in the section of biology, Prof. Broadbent gives a summary of his researches as to the functions of the nervous centres of the brain, and submits certain unsettled points for information.

This reduction of the intellectual work of each section to a species of university routine not only facilitates discussion, but enables each member of the section to recall and classify facts, consult notes and memoranda of cases beforehand, and prepare well-digested rejoinders, instead of talking at random, as even venerable professors sometimes will when an issue is suddenly sprung upon them. While, however, this minute organization of the intellectual work of a learned society conduces to pointedness and rapidity of discussion, tacitly at least it abridges the liberty of suggestion that forms one of the valuable elements of meetings less rigid in their rules, and more supple to the unexpected turns and issues which necessarily occur in debates upon unsettled scientific questions—and of all the sciences, that of medicine is perhaps the most abundant in disputed points. Our own larger liberty of discussion and greater freedom from routine have, therefore, their special advantages, while the silent disapprobation of a body of his fellows generally suffices to suppress the babble of a random talker.

It certainly speaks well for the reputation of medical science in this country, that out of three delegates to the congress from the American Medical Association, two—Dr. J. Marion Sims and Dr. Edward Seguin—were placed upon the list of honorary presidents (*présidents d'honneur*), while Austria and Germany were accorded only one each.

A paragraph from the opening address of President Vogt, relative to recent progress in methods of medical investigation, is so applicable to the doings of our own medical societies this year that it will bear translation:

"By experimental methods of inquiry, the same rigorous precision has been introduced into physiological and pathological studies, that exists in the physical sciences. Guess-work has thus been banished as far as possible, and replaced by positive results, capable of being verified and controlled. The exactness of instrumental inquiry has been followed by more rigorous methods of reasoning; and if the probabilities of error have not been completely eliminated, they have been reduced to a minimum, and the limits of possible error indicated with precision."

RESPECTABLE PROFESSIONAL STANDING.

THERE are few, if any, who can afford to be entirely independent of the opinion of their associates. A medical man may declare his freedom by acting as an individual rather than a part of a great and influential community; but he does so often at the risk of losing his influence, not only as a medical man, but as a member of a learned profession. We confess that we intend these remarks to bear upon the necessity of belonging to medical organizations, or in some way identifying oneself with professional interests generally. Although this is a fact which is not so well appreciated in medical circles as it should be, we now and then have an illustration of its importance. Especially is this the case when a medical man appears as a witness. Here, in order to give his testimony its full force, he has to prove to the jury his capability to testify not only by his education and qualifications, but his affiliation with his profession. In a recent instance of this sort a medical gentleman of this city, who openly boasted that he did not care to become a member of any medical society, was severely handled by the attorney of the opposite side, who made it appear to the jury that the gentleman in question was not regular, and that his testimony should be taken with that allowance given to all suspicious witnesses. The result was what might have been anticipated. There is no argument even in a court of law against respectable connection and high standing in the profession, while a suspicion of the contrary is always a handle for an adversary. The moral of all of which is that it is safer to be respectable, even if it does incur the necessity of belonging to some recognized medical organization.

THE BOGUS DIPLOMA TRAFFIC.

AGAIN the unpleasant subject of bogus medical diplomas is brought up! The Mayor of Philadelphia has just received a letter from Lucius Fairchild, U. S. Consul at Liverpool, to the following effect, viz.: "Will you kindly inform me whether or not the Eclectic Medical College of Pennsylvania, named on the enclosed card, is duly authorized to grant diplomas to which faith and credit could be given? I ask this because I have been applied to to certify signatures, etc., on a diploma issued by that college. In view of the frauds which have been practised by the sale of worthless diplomas purporting to be issued in Philadelphia, I desire to exercise extreme caution in such matters." The enclosed card was "Eclectic Medical College of Pennsylvania. Sessions of 1871–72, order of lectures, etc., etc."

The Mayor at once began an investigation of the matter, which resulted in the following very interesting revelations:

Acts of Assembly relating to the College. February 25, 1850, an Act incorporating the Eclectic Medical College of Pennsylvania. February 26, 1853, the American College of Medicine in Pennsylvania was incorporated. (This was an omnibus bill, and was not published in the authorized Acts of Assembly until 1861.) May 7, 1855, a supplement to the former Act, of February 25, 1850, providing that the word "Eclectic" be stricken out, thus leaving the title the "Medical College of Pennsylvania." February 15, 1860, supplement to the Act of February 26, 1853, changing the title of the American College of Medicine in Pennsylvania, to the "American College of Medicine in Pennsylvania and the Eclectic Medical College of Philadelphia." May 21, 1865, a supplement to the Act of February 25, 1850, incorporating the Eclectic Medical College, and a supplement to the Act of February 26, 1853, incorporating the American College of Medicine, provides that the titles of the American College of Medicine in Pennsylvania and the Eclectic Medical College of Philadelphia, shall be changed to the "Philadelphia University of Medicine and Surgery." February 18, 1870, an addional supplement to the Act incorporating the American College of Medicine in Pennsylvania, etc., conferring additional powers of teaching *in all branches of the arts and sciences, and of conferring the usual degrees, and of establishing a hospital, and of issuing stock in sums of* $50 *or upward, to purchase buildings essential to the establishment and successful working of said university and hospital.* (The italics are our own.) March 22, 1872, two Acts reciting that a committee of the Legislature has ascertained that the Philadelphia University, or American College of Medicine and the Eclectic Medical College of Pennsylvania have been engaged in the unlawful sale of medical diplomas to persons not qualified, etc., and repealing the two charters and supplements. (This was the time of the

first excitement in medical circles, caused by the discovery of the wholesale distribution of bogus medical diplomas by this institution, both in this country and abroad.) In the same year, 1872, an appeal was taken to the Supreme Court, and it was decided that the Legislature had no right to repeal a charter, but that the proper course to pursue was to apply for a writ of *quo warranto*, and set out therein the particular instances of grievance. This has not yet been done, and the College is, therefore, virtually still in existence.

The above is the truthful history of the great Philadelphia bogus medical college in epitome. What a shameful tale these official records of charters obtained and charters changed and charters combined, of supplements, and repeals, and appeals, tell! Here is twenty-seven years of such procedure laid bare! First, one institution selling bogus diplomas and getting into hot water for it; then the same men getting up another affair and carrying on the same illicit business there: then getting unpleasantly situated there; then combining the two affairs and trying the same game; then uncombining the two affairs and giving them new names; then combining the two uncombined affairs under a still newer title, and still by hook or crook managing to carry on the shameful business! Finally, public action in the repeal of the charter, and action of the courts making that repeal of none effect! And the place "*is, therefore, still in existence!*"

We do hope our neighbors will take some quick, sure step and blot out at once and forever the "Great Bogus Diploma Mill" that for so long a time has been trying to throw the burden of its shame upon the profession in Philadelphia.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 18, 1877.

Dr. S. S. Purple, President, in the Chair.

THE OBSTETRIC FORCEPS—DEMONSTRATION OF A NEW PRINCIPLE—DESCRIPTION OF M. TARNIER'S NEW INSTRUMENT.

Prof. Fordyce Barker, before presenting Tarnier's new obstetric forceps and demonstrating the principle upon which the instrument operated, gave a brief outline of the progressive change which had taken place in obstetric teachings since the early part of the present century. As was well known, early teaching was to the effect that the forceps should not be used except under circumstances where it became conclusive that without the instrument delivery of the woman could not be effected.

Subsequent teachers favored its use much more frequently, but they were so laden with former prejudices against the use of the instrument, that they fell but little short of the teachings of their predecessors. The instrument was regarded as one of great danger, and that opinion was instilled into the minds of pupils. By comparing statistics, judgment could be formed regarding the effects of these teachings.

Of the older teachers and writers, Ramsbotham used the forceps only in one out of 729 cases; Clark, in one out of 742; Collins, in one out of 617; Churchill, in one out of 546; Battie, in one out of 139.

Among the later writers and teachers, Naegele employed the instrument once in 31 cases; ——— once in 14 cases; Hamilton, of Scotland, once in 7 cases; Siebold, once in 7 cases; and George Johnson, once in 11½ cases, and, as he regarded, with a great saving to both mother and child.

There were three reasons why the celebrated men who operated in the early part of the century entertained such horror of the obstetric forceps.

1. They were entirely ignorant of the mechanism of labor.

2. While they greatly exaggerated the dangers both to mother and child from the use of the forceps, they did not recognize the danger which results to both mother and child from prolonged labor.

3. They confounded the difficulty and skill demanded in their use in the comparative few cases in which the instrument was required, when the head of the child was at or above the superior strait, with the very many cases in which we now use the instrument when the head is in the cavity or at the outlet of the pelvis.

The causes which had contributed to effect a change in opinion and practice had been, *first*, a knowledge of the mechanism of labor; *second*, a paper contributed by B——, of Dublin, in 1829. Previous to that date it had been stated that for forty years the forceps were almost never used in that country, owing to the great influence of the older teachings in obstetrics. Dr. B—— produced his paper in which was the statement that he had employed the forceps in 105 cases without a single fatal result to the mother or a single death to the child that could be ascribed to the instrument.

Next came a paper from Sir James Y. Simpson, who demonstrated that both maternal and infantile mortality increased in a direct ratio with the increased duration of labor.

Subsequent to the publication of Dr. Simpson's paper, Dr. Barker read a paper before the Medical Society of the State of New York, on the use of the forceps, which was published in their volume of Transactions for the year. At the time, the paper was severely criticised, but Dr. Barker believed it would not receive the same criticism at the present day.

Reference was then made to various publications since the year 1860, but perhaps the most remarkable was the last report of Dr. George Johnson, of Dublin, master of the ——— Lying-in Asylum. It should be recollected that one of Dr. Johnson's predecessors employed the instrument only once in 742 cases; another only once in 617 cases; and one of those predecessors had said that he had never resorted to its use in private practice. They had, however, employed the perforator 141 and 149 times. Dr. Johnson reported that he resorted to the forceps once in 11½ cases, and that in all the cases of labor which had been in the institution he had used the perforator only three times.

Dr. Dunster, of Ann Arbor, had given, in a paper lately published, a most complete summary of the doctrines entertained at the present time regarding the use of the obstetric forceps.

Dr. Barker further remarked that the plain practical question to be settled in every case was, which

is safer for the mother and child, to use the forceps or permit further delay in the completion of labor?

The danger in the use of the forceps to both mother and child was to be considered with reference to two points: *First*, with reference to the danger when the head was in the cavity or at the outlet of the cavity; and *second*, the danger when the head was at or above the superior strait.

In the hands of an obstetrician who thoroughly understood the mechanism of labor, who had proper instruments, and who operated only in appropriate cases—those in which there was no disproportion between the fœtal head and the diameters of the pelvis through which it must pass—there could be no danger in the use of the forceps. There could be danger only when there was such disproportion as required such compression of portions of the cranium of the child as to produce intercranial lesions, or injury to the mother by violent pressure upon the soft parts.

It was believed to be unnecessary to discuss that proposition. There was a word to be said, however, with reference to delivery of the head when in the cavity, or at the outlet of the pelvis, in order to prevent laceration of the perineum. The question might with propriety be asked, is not the forceps a dangerous instrument because of the tendency to produce laceration of the perineum? Dr. Barker's own answer to that question was, that the forceps, when properly used, was an instrument calculated to preserve rather than rupture the perineum. The result depended entirely upon the manner in which the instrument was used. If the vulva was found so narrow that the head could not pass without producing laceration, of course rupture of the perineum would occur, even though the head was allowed to pass through unaided by art. Again, the danger of laceration was very much increased by long continued pressure of the head of the child against the soft parts of the mother. Dr. Barker's own practice was, when the vulva became fully dilated, to remove the forceps, and then introduce the fingers into the rectum, pull the head forward and deliver. He never completed the delivery by rapid removal of the head through the outlet. Used in that manner, it was believed that the forceps preserved rather than destroyed the perineum. During an experience of twenty-five years Dr. Barker had never had laceration of the perineum, from the use of the forceps, occur to such an extent as to require subsequent surgical treatment.

Secondly, with reference to danger to mother and child from the use of the forceps when the fœtal head was at or above the superior strait. The danger in that instance was from too violent pressure of the head of the child, or from making traction in the wrong direction, or from compression of the soft parts of the mother.

The question to be considered is, whether the safety of the mother and child was not greatly increased by early delivery rather than by following the teaching of the older writers who never used the long forceps, but always resorted to the perforator and craniotomy, thereby inevitably sacrificing the life of the child. There were three essential points to be considered with reference to delivery from the superior strait:

1. The operator should thoroughly comprehend the cause which made the operation necessary.

2. The mechanism for overcoming that cause should be thoroughly understood. The operator should know perfectly what the relation was between the diameters of the fœtal head and the diameters of the pelvis through which it was to pass, in order that he might know how and when to change the direction of the traction which should make the diameter of one correspond with the diameters of the other.

3. The operation should be performed slowly. One-half hour was the least time that should be occupied in bringing the head down from the superior strait.

Finally, in safe delivery from the superior strait very much depended upon the instrument employed. Dr. Barker ordinarily employed Simpson's forceps. He rarely used the short forceps. In cases in which there was required simply a slight increase of force, the short forceps were sometimes used to save the woman from two or three hours of suffering, and were applied without change of position, and often without suspicion on the part of the patient that the instrument was being employed.

Dr. Barker then made brief allusion to the history of the forceps, and came to the description of a new instrument devised by M. Tarnier of France. It was claimed by the inventor that his instrument accomplished three things:

1. It enabled the operator always to make traction in the direction of the axis of the different straits.

2. It allowed the fœtal head such mobility that it might take the direction it would normally take in passing through the pelvic cavity without the use of any instrument.

3. It furnished a guide which showed the operator in what direction traction should be made to correspond to the axis of the pelvis.

Dr. Barker then described the instrument and demonstrated, by means of diagrams, the principle upon which it was constructed. The theory was briefly as follows: When the head of the child was at or above the superior strait, it was impossible to make traction with the forceps in ordinary use, in the exact axis of that strait, because of the resistance offered by the perineum. It was necessary to make traction in a line somewhat forward of the exact axis of the strait, hence a certain amount of force was wasted against the posterior surface of the symphysis pubis. In Tarnier's instrument this was obviated by a curve in the handle which permitted traction to be made in the axis of the superior strait without making undue pressure backwards on the soft parts.

Traction was made by means of independent rods which were attached to the posterior border of the blades of the instrument and terminated in a cross-bar just beyond the handles. The instrument was adjusted in the ordinary manner; the blades locked and fastened, and the handle contained a mechanical arrangement for regulating the amount of compression brought to bear upon the head of the child. To this part of the forceps Dr. Barker objected, because he believed that the degree of compression should always be under the immediate control of an intelligent hand.

Now, when the instrument was applied to the fœtal head at the superior strait, traction was first made backwards and downwards, but as the head approached the cavity of the pelvis the handle of the forceps began to rise, thus indicating in what direction traction should be made to correspond to the axis of the pelvis through which the fœtal head was passing. As the handles arose the tractor was brought up to it, and so we had an automatic indicator which gave *direction* to the force of the operator. The instrument was strong, and that was regarded as an argument in its favor, for it was claimed as an axiom that, in the obstetric forceps, *power was safety and feebleness was danger*.

Prof. James P. White, of Buffalo, was introduced

to the Academy, and remarked that he had been led to believe the reason why the forceps was used so much more frequently on the Continent than in the British Dominions, was because the operators on the Continent used the long, double-curved instrument. In the countries where the short forceps only were employed the perforator was very commonly resorted to. It was doubtless true that where the forceps were most used, the perforator was least employed. Dr. White believed that the forceps should be used much more frequently than it is; that it should be used skilfully, but only by those who were thoroughly familiar with the mechanism of labor and had sufficient mechanical knowledge to handle it properly. The doctor then gave a detailed description of his own instrument, sometimes called Du Bois' forceps. He was unable to see the utility of Tarnier's instrument, and believed it to be a substitute of mechanical device for skill. It was claimed that the perineum could be pushed back sufficiently far to allow traction to be made in the axis of the superior strait by means of instruments now employed, and that a finger, guided by intelligence, was a sufficient indicator as to the direction in which traction should be made. If a thorough knowledge of the mechanism of labor taught the operator in what direction his traction should be made, why be troubled with a mechanical indicator? The doctor believed that in twenty years from now Tarnier's instrument would be found among obstetric curiosities. He also believed that it was unskilful to rupture the perineum while delivering a woman with forceps.

Prof. W. T. Lusk was not prepared to accept Tarnier's instrument as being any more desirable or even as desirable as many forceps now in common use. The objection to the old instruments because the operator was not able to make traction in the exact axis of the superior strait he did not believe was warranted, for there was no danger of inflicting injury upon the perineum by depressing the handles of the forceps so as to make traction in the proper direction. When the head had been brought into the cavity of the pelvis, it could be easily delivered with the ordinary forceps, and it was to be noted that in so doing, as the traction intermitted the handles would rise, and consequently there was no need whatever of an extra indicator.

Again, he regarded the new instrument as objectionable when used at the superior strait, because in such cases there was very commonly contraction of the pelvis in its antero-posterior diameter. The consequence was, that the head of the child did not engage in the oblique diameter nearly so often as in a somewhat transverse diameter. The result was, that when the forceps were applied one blade rested over the occiput and the other over the frontal region, and although the tissues against the pubis might be saved from pressure by the instrument of Tarnier, the operator did run the risk by its use of injuring the tissues between the head of the child and the promontory of the sacrum. He favored the use of the straight forceps used by Prof. Taylor when the head was at the superior strait of the pelvis; and after it had been brought into the cavity the main difficulty was overcome, because the double-curved forceps could be used with comparative ease.

Prof. Isaac E. Taylor remarked that the straight forceps he used was Pitkins' instrument. He believed that by the new instrument we set aside what nature had taught us, and was unable to see any advantage whatever that could be derived from its use.

The Academy then adjourned.

Correspondence.

ELECTRICITY IN THE TREATMENT OF DYSMENORRHŒA.

To the Editor of The Medical Record.

Dear Sir:—In the Record of October 6th the theory is enunciated that, in dysmenorrhœa, "an irritation originating in the uterus is propagated through its sensitive nerves (the sacral nerves) to the nervous centre, whence it is transmitted to motor nerves (plexus uterinus) which produce the spasmodic contraction of the uterus," and that a cure for this condition is effected by directing a galvanic current of "considerable' 'intensity towards the genito-spinal centre, and a current of "moderate" intensity towards the medulla oblongata. That electricity is of more or less value in the various forms of menstrual disorder is now sufficiently established, but that it can be relied upon with any degree of certainty, either in establishing the menstrual function, or in relieving the excessive pain with which it is so frequently associated, is far from evident.

The theory above stated may or may not be tenable; it is as yet a mere matter of opinion. But my object in writing is simply to suggest that whether true or not it is impossible, with our present knowledge, either to obtain uniform results in the electrical treatment of dysmenorrhœa, or to confidently assert that the indications are always for a special current or method. In an article, entitled "General Electrization, and its Use in Certain Uterine Affections," read before the New York County Medical Society, and subsequently published in a number (September 15, 1866) of this journal, I detailed a number of cases of dysmenorrhœa, aggravated in their symptoms and persistent in their course, that were completely and permanently relieved. The condition with which the dysmenorrhœa was associated in these cases was mostly one of anæmia and exhaustion, and the treatment was based on the now well-attested tonic properties of general faradization.

Galvanization of the spine along its whole course, as well as over the genito-spinal centre, has in my own, as well as in the experience of others, proved at times entirely successful, although I confess that it has never occurred to me that the "*medulla oblongata*" demanded special attention in the treatment, by the use of a "moderate" current. It would be easy to detail from my clinical record quite a number of cases that have been relieved by the application of electricity, but, on the other hand, an impartial statement would necessitate the enumeration of not a few failures.

I offer, therefore, the following case, not as typical of results that may always be expected, but rather as illustrating, notwithstanding our theories, that no one form of current, or method of application, is exclusively indicated:

Miss T., aged twenty-two, was referred to me, January 11, 1877, by Dr. Geo. A. Peters. The patient was in fair general condition, but had suffered from excessively painful menstruation almost from the first appearance of the catamenia.

She was submitted to general faradization, and after receiving eleven applications, the menses appeared, but were attended with little, if any, pain. Nine more applications were given before the next appearance of menstruation, and with equally good results. In this connection I wish merely to add that while electricity is a mysterious agent, and has, therefore, attracted to it much of ignorance and credulity, there

is nothing mysterious or exceedingly difficult in its methods of application, as has been too frequently implied in the presentation of the subject. Everything well authenticated, and of real value, relating to the *modus operandi* and *rationale* of electro-therapeutics, has been stated over and over again, and is open to all.

A. D. Rockwell.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from October 14 to October 20, 1877.

Frantz, J. H., Major and Surgeon. Granted leave of absence for two months on surgeon's certificate of disability. S. O. 239, Div. of the Atlantic, Oct. 15, 1877.

Buchanan, Wm. F., Captain and Assistant Surgeon. Relieved from duty at Allegheny Arsenal, Pittsburg, Pa., and to return to his station, Morganton, N. C. S. O. 241, Div. of the Atlantic, Oct. 17, 1877.

Skinner, J. O., First Lieutenant and Assistant Surgeon. Relieved from duty at Carlisle Barracks, Pa., and to return to his station, Fort Johnston, N. C. S. O. 241, C. S., Div. of the Atlantic.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending October 20, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Oct. 13.....	1	26	40	2	3	49	0
" 20	0	33	42	3	4	54	0

Red Cross Society.—The Queen of England has made a donation of £250 for the relief of the sick and wounded of both armies of the East.

Home Hospitals in England.—The idea of establishing Home Hospitals in England meets with much favor, one-fourth of the guarantee-fund having been subscribed.

Examinations of Candidates for Medical Department of U. S. Army.—An Army Medical Board will be convened in this city early in November, for the examination of applicants for appointment as assistant surgeon.

The following will be the general plan of the examination:

I. A short essay, either autobiographical or upon some professional subject—to be indicated by the Board. 2. Physical examination. This will be rigid, and each candidate will, in addition, be required to certify "*That he labors under no mental or physical infirmity, nor disability of any kind, which can in any way interfere with the most efficient discharge of his duties in any climate.*" 3. Oral examination on subjects of preliminary education, general literature and general science. The candidate must satisfy the Board in this examination that he possesses a thorough knowledge of the branches taught in the primary schools, and a failure to show this, will end his examination. Oral examination on scientific subjects will include Chemistry and Natural Philosophy; and that on literary subjects will include English literature, History of the United States and General History—Ancient and Modern. Candidates possessing a knowledge of the higher mathematics, the ancient and modern languages, will be examined therein, and due credit given for a proficiency in any or all of these subjects. 4. Written examination on anatomy, physiology, surgery, practice of medicine, and general pathology, obstetrics, and diseases of women and children. Oral examination on these subjects, and also on medical jurisprudence, materia medica, therapeutics, pharmacy, toxicology, and hygiene. Few candidates pay the attention to hygiene which it deserves; it is made an important subject in this examination. 5. Clinical examination, medical and surgical, at a hospital. 6. Performance of surgical operations on the cadaver.

The Board will deviate from this general plan whenever necessary, in such manner as they deem best to secure the interest of the service. The Board will report the merits of the candidates on the several branches of the examination, and their relative merit in the whole, according to which the approved candidates will receive appointments to existing vacancies, or to vacancies which may occur within two years thereafter. An applicant failing one examination, may be allowed a second after one year, but not a third. No allowance will be made for the expenses of persons undergoing examination, as this is an indispensable prerequisite to appointment, but those who are approved and receive appointments will be entitled to transportation on obeying their first order.

Marshall Infirmary, Troy, N. Y.—The number of patients admitted during the year was 219; males, 163; females, 56. Total number of patients under treatment during the year was 268; males, 198; females, 70. Of this number there were cured 131; males, 100; females, 31. Improved, 37; males, 27; females, 10. Unimproved, 24; males, 17; females, 7. Dead, 25; males, 15; females, 10. Total number discharged during the year was 217; males, 159; females, 58. The number of patients remaining under treatment at the close of the year was 51; males, 39; females, 12.

American Optical Instruments.—It is gratifying to learn that American skill in the construction of optical instruments is beginning to be appreciated abroad. The microscopes of Tolles, Zentmayer, Grunow, and other American manufacturers are winning great favor in Europe, and Alvin Clark & Sons, of Cambridgeport, have just finished an eleven-inch refractor for the Lisbon Observatory. Several other large instruments are in course of construction by this firm, among others a twenty-six-inch telescope for Mr. McCormick, of which the lens is completed. They are about commencing work on a twenty-seven-inch refractor for Yale College.

Bellevue Hospital Medical College.—Dr. Brown-Séquard will deliver a course of eight lectures at the Bellevue Hospital College, on "Paralysis and Convulsions as Effects of Organic Disease of the Brain." The Profession is cordially invited by the Faculty of the College to these lectures. The days and hours will be as follows:—Friday, Nov. 2, at 2½ o'clock; Saturday, Nov. 3, at 3½ o'clock; Friday, Nov. 16, at 2½ o'clock; Saturday, Nov. 17, at 3½ o'clock; Friday, Nov. 30, at 2½ o'clock; Saturday, Dec. 1, at 3½ o'clock; Fri-

day, Dec. 14, at 2½ o'clock; Saturday, Dec. 15, at 3½ o'clock.

How Long ought Women to stay in Bed after Delivery.—A valuable paper was read at the last stated meeting of the Medical Society of the County of Kings, September 18, 1877, by H. J. Garrigues, M.D., entitled, "How Long ought Women to stay in Bed after Delivery?" Dr. Garrigues dissents from the positions taken by Dr. Goodell, of the Philadelphia Preston Retreat, recently published in the American supplement to the *Obstetrical Journal*, both on theoretical and on practical grounds. Dr. Goodell, it will be remembered, holds the view that, labor being a physiological process, it should not be made to wear the livery of disease, and that, under circumstances fairly favorable, the patient should be encouraged to get up and dress herself on the third or fourth day after delivery. His reasons are, that the upright posture excites the womb to contract, that uterine diseases scarcely exist among races whose women leave their beds early, and that his own experience has shown him that convalescence is rendered far more prompt and sure. After discussing the literature of the question, as represented by Scanzoni, Naegele, Siebold, Schroeder, Spiegelberg, Cohnstein, Bischoff, Barnes, Playfair, and Gallard, Dr. Garrigues cites the exact investigations of Hecker, Heschl, Boemer, Duncan, Serdukoff, and Autefage, as to the weight and dimensions of the womb immediately after delivery, and the relative rapidity with which the organ resumes its normal weight, dimensions, and position. It appears from Boemer, who has measured in 64 cases, that immediately after the event the length of the organ varies from 12 to 19 centimetres (3½ to 4½ in.), and that at the expiration of two weeks the womb is still from 9 to 12 centimetres long, the length of the cavity in the non-puerperal state being only from 6 to 7 centimetres. The width of the organ at the first examination was 10 centimetres, and its elevation above the symphysis pubis 11 centimetres. The elevation diminished during the first twelve days to 5.2; but on the twenty-second day it was still 4.6, whereas the normal elevation is only 3 centimetres. Heschl's data as to weight are even more significant. The organ, according to Heschl, weighs from 22 to 24 ounces immediately after parturition; at the end of the first week from 19 to 21 ounces, at the end of the second from 10 to 11 ounces, at the end of the third from 5 to 7 ounces; its normal weight of from 1½ to 2 ounces being arrived at only by slow reduction at the end of the second month. Again, the formation of a new mucous lining of the organ never occurs before the third or fourth week, and the regeneration of that tissue is often delayed considerably longer than that; not being finished, according to M. Robin, until sixty or seventy days after the delivery. Dr. Garrigues gives a short but very comprehensive summary of this and other physiological processes, and argues from all the data collected by modern research that the sitting posture is apt to produce alterations in the shape and position of the womb, which hinder free circulation and disturb its involution, to say nothing of tending to form emboli—a frequent cause of sudden death after parturition as well as of dangerous secondary hemorrhage. The time that a woman should stay in bed cannot, he concludes both from physiology and from practical observation, be limited by any prescribed number of days, but must depend upon the rapidity of the shrinkage in weight and dimensions, and of the regeneration of the mucous membrane in each particular case, and these points the practitioner must determine by daily examination. His rule is not to permit a patient to get up until the womb has retired from the abdominal wall and subsided behind the symphysis, which, in most cases, takes place about two weeks from the date of the delivery.

Medical Advertising.—Our esteemed contemporary the *Albany Evening Times*, takes strong ground against the medical advertising monopoly in Albany. After quoting our recent editorial on the subject it remarks as follows:

"Connection with a college or hospital seems to be regarded by some doctors as giving them a privilege to advertise which is denied other doctors who are not connected with such institutions. Indeed, it would appear that the principal advantage of being members of a college or hospital staff is to enable the doctors connected with those institutions to carry out successfully the advertising dodge; while the code or law of the Ophthalmological Society (pertaining to diseases of the eye) forbids its members even to put the word 'oculist' on an office sign. Yet this advertising dodge, under the head of 'hospital clinics,' enables certain doctors to do a brisk business in advertising by keeping their names and their 'wonderful operations' before the public in the newspapers. We had thought that the faculty of a medical school were presumed to stand at the head of the profession, and were supposed to give to the other members an example of integrity and strict honor in obeying the code of medical ethics. The case, however, is so different, that we would suggest to our medical friends the question whether—since certain college professors persist in indirectly advertising—it would not be better to do away with the present code of medical ethics and advertise openly, as other business men do, and pay for their advertising as a simple matter of justice to the publisher and respect for the medical by-laws."

Repeating Physicians' Prescriptions. — Physicians complain that their prescriptions are not only used by their patients, but handed round oftentimes amongst a large circle of friends, and in many instances handed down from generation to generation as a kind of heirloom. This custom has its attendant dangers, and in the case of poisons might be productive of bad results, to remedy which it is proposed in Germany to institute a law prohibiting chemists to make up any prescription containing strong remedies—as drastics, emmenagogues, sedatives, etc.—unless the prescription is again countersigned by the medical man who originally gave it.—*Med. Press & Circ.*

Removal of strong Odors from the Hands.—The *Schweizerische Wochenschrift für Pharmacie* has a communication from F. Schneider, in which he states that ground mustard, mixed with a little water, is an excellent agent for cleansing the hands after handling odorous substances, such as cod-liver oil, musk, valerianic acid, and its salts. Scalepans and vessels may also be readily freed from odor by the same method.

A. Huber states that all oily seeds, when powdered, answer this purpose. The explanation of this action is somewhat doubtful, but it is not improbable that the odorous bodies are dissolved by the fatty oil of the seed, and emulsionized by the contact with water. In the case of bitter almonds and mustard, the development of ethereal oil, under the influence of water, may perhaps be an additional help to destroy foreign odors. The author mentions that the smell of carbolic acid may be removed by rubbing the hands with damp flax-seed meal, and that cod-liver oil bottles

may be cleansed with a little of the same or olive oil.

New York Academy of Medicine.—At a stated meeting held Oct. 18, 1877, Drs. W. R. Gillette and A. Hodgman were elected Resident Fellows.

Body-Snatching.—A medical student of Syracuse has been accused of robbing a grave in the neighborhood of that city, and transporting the body to the dissecting-room of the college. The remains have, despite mutilation, been identified by friends, and altogether, in a legal aspect, the case looks far from promising to the young adventurer.

University of Michigan — Medical Department.—As a reward for extending the annual course from six to nine months, and grading the same, this institution has increased its number of students, and has proved in a substantial manner that some who wish to become doctors are not willing to do so in the shortest possible time and in the easiest possible way.

Home for Opium Habitues.—A private medical home for opium habitues has been opened in Brooklyn. The medical attendants are Drs. J. B. Mattison and A. M. Mathias.

Thèses de Paris.—Some of the theses presented this year which have attracted attention on account of their merit, were written by female medical students. Those worthy of special mention were by Mme. Ribard, on Eye-Drainage, by Mlle. Ocounkoff, on the Physiological Functions of Sulphuric Ether, by Miss Anna Dahms, on the Histology of the Thyroid Gland.

Fatal Poisoning by Irish Yew.—A case is reported by the *British Medical Journal* of a fatal poisoning by Irish yew, several doses of a strong infusion of which were administered by a man to his wife for the purpose of producing abortion. The widower was committed by the coroner's jury on the charge of wilful murder.

The Internes of the Hôtel-Dieu, of Paris, have sent a letter to the Administrator of Public Assistance, complaining of the insalubrious character of the apartments destined for their use in the new Hôtel-Dieu. These apartments have no windows, and are damp as well as dark. The contrast between them and the luxury and sumptuousness of the bureaux, and the apartments set apart for the employés of the hospital, is very striking, and is particularly wounding to the pride of the doctors.

Jaborandi in Mastitis.—Dr. G. M. Wells, of Sonoma, Cal., writes: "*Sir*:—Allow me to direct the attention of the profession to the use of jaborandi in mammary abscess.

"Mrs. G. has been the subject of repeated abscesses; as soon as one was formed and lanced another succeeded, until she became 'weary and worn out.' Quinine failed, sulphocarbolates did no good, belladonna externally and internally disappointed our hopes, so I determined to try some other remedy and gave the following:

℞
Ext. jaborandi fld.,
Ext. dandelion fld. ..... āā ʒ ss.
Syr. simp. ..... fl. ʒ iij.
M. S. ʒ ss. every two hours.

"I directed the above to be used until profuse sweating was produced, which occurred after the third dose in such profusion as to saturate the linen thoroughly, and continued for several hours. As soon as the sweating became thoroughly established the temperature and pain (which before had been excessive and severe) was reduced and relieved, and the symptoms, which were so threatening the day before, were all gone. The debilitating effect of the sweating passed off in a few days, since which time the patient has been in excellent health. I have had no other opportunity to test the remedy in this class of cases, but have the utmost confidence in its virtue.

Size of Families in Colombia.—In the State of Antioqua, Colombia, each marriage produces, as a rule, from ten to fifteen children. The mothers all nurse their own children, at least until the ninth month, when the symptoms of a new pregnancy usually present themselves. Dr. Posada-Aranjo knows a woman who has thirty-four children, all living. He also knows a man who has been married three times, and has had fifty-one children. As this man's present wife is still young, he has a chance of increasing the number of his offspring to sixty. The women marry at the age of thirteen, fourteen, or sixteen years. The first menstruation occurs at the age of thirteen or fourteen years.

Medical Society of the County of New York—Officers Elect for 1877–1878.—At an annual meeting held Oct. 22, 1877, the following officers were elected: President, Dr. John C. Peters; Vice-President, Dr. Isaac E. Taylor; Rec. Secretary, Dr. A. E. M. Purdy; Cor. Secretary, Dr. F. A. Castle; Treasurer, Dr. H. P. Farnham; For Censor, Dr. H. G. Piffard; For Delegates to State Medical Society, Drs. R. W. Taylor, D. H. Goodwillie, L. D. Bulkley, and G. H. Fox.

The Petrifaction of Bodies.—Much curiosity is felt by those opposed to the present custom of burying the dead, with regard to the results of the system mentioned by Gorini, of Lodi. This genial man proposes to prevent the putrefaction of the body by petrifying it. His experiment with Mazzini has proved entirely successful. All who have visited the great republican in his tomb have been astonished at the perfectness with which his traits have been preserved in the petrified body. Gorini keeps his method of petrifying bodies secret, but has taken measures to secure its publication after his death.

Prof. C. von Heine, of Prague, died of diphtheria last month. Prof. von Heine was one of the foremost surgeons in Germany, and was, moreover, a man of such purity and amiability of character that his death will be widely felt and deplored.

The Malpractice Case in Brooklyn.—We are pleased to state that the charge of malpractice against Drs. Geo. K. Smith and J. Byrne, of Brooklyn, for improperly amputating a cervix uteri, was not sustained, and a nonsuit was granted. The damage was laid at the modest sum of twenty-five thousand dollars to offset a bill for services rendered, which the plaintiff refused to pay.

Beginning of Menstruation.—Dr. Parvin, editor of *American Practitioner*, tabulates one hundred cases of menstruation, and concludes that the average age of its commencement is thirteen years and eight months; and the average duration of flow four days and six hours.

Indian Famine.—The extremest stress of the Indian famine is at an end, and the people engaged on the relief are beginning to hurry away to their homes. Copious rains have fallen over the stricken districts.

Original Communications.

LISTER'S ANTISEPTIC TREATMENT OF WOUNDS.

THE MATERIALS USED AND THEIR MODE OF APPLICATION.

(Being a Report to the Surgeon-General of the U. S. Army.)

By A. C. GIRARD, M.D.,

CAPTAIN AND ASSISTANT SURGEON U. S. ARMY.

GENERAL:—I have the honor to transmit herewith a report on the materials used in Lister's system of wound-treatment and their mode of application.

It is not necessary for my purpose to enter into a discussion on the yet undecided question of the *modus operandi* of the antiseptics, and I may therefore leave to other pens the task of elucidating, from the testimony extant, if the bacteria are the only causes of putrefaction—if there are different species of them, some harmless, some injurious,—if they act mechanically or as a poison—if they can cause putrefaction in normal tissues or need a pathological focus for their functions, or simply act as a ferment under certain circumstances, or are bearers of a "septic zymoid." The only thing which concerns us here is the indisputable fact that there *are* germs or ferments in the atmosphere which will produce putrefaction in wounds, and that by preventing their ingress we can, in most cases, avert the complications which cause the greatest fatality in surgery. This is the key to Lister's system. For the sake of science it is to be hoped that, sooner or later, more light will be thrown on the physiological and pathological changes connected therewith. This will, however, not necessarily benefit suffering mankind, and we cannot wait for it and shut our eyes to the remarkable clinical results attained by Lister and his followers, because they cannot be explained to everybody's satisfaction. Be the "germ theory" true, or partly true, or an absolute mistake, practically it matters not; for the present it is the best explanation we have for a most successful method and the best guide in its use.

It would unnecessarily extend the size of this report should I attempt to relate the steps by which Mr. Lister gradually introduced and perfected the system of wound-treatment which I am about to describe. He first used it in his hospital in Glasgow in 1868, but ever since it has gradually been changed and improved on by him, and will probably undergo further changes in time. It has met with much indifference and with many enemies, but is gradually working its way into all the great hospitals of the civilized world.

During a sojourn abroad last winter, my attention was particularly drawn to this innovation in surgery, as it had been introduced on the European continent but two years, and was the almost exclusive topic of conversation of the surgical profession there. It happened that my first intercourse was with some of the most decided and renowned opponents of the system, and I became acquainted with all the objections to it before I had witnessed its advantages and benefits. I received therefore the glowing accounts of Lister's disciples with an incredulous ear, and it was only by travelling from one "Lister hospital" to another that belief in its superiority forced itself upon me. I became convinced that if it is not the only proper wound-treatment, it is the safest one, and renders conservative surgery possible beyond what had ever been believed. It would take volumes to describe all I witnessed, and I cite but a few examples. Who, before this, would have fearlessly opened the knee-joint for suppurative arthritis, as I saw done under the "spray," the patient recovering in a few days with a sound joint? Who would have expected an ovariotomy with general adhesions, in a woman of seventy-five, to heal in eight days without a symptom of reaction; or a laparotomy for the liberation of incarcerated peritoneal hernia, in a moribund patient, healing in six days; or a resection of the ulna in nine days? I observed several hip-joint resections recovering in the most favorable manner, numbers of compound fractures of the extremities knitting under Lister's dressing like simple ones; even comminuted fractures which formerly would have induced removal of the limb, united without an unfavorable symptom. Cancers which had been removed with great loss of substance united by first intention; other tumors were extirpated and the operation caused no more inconvenience than a simple incision. The smell of putrefaction was banished from wards where scores of patients were lying with grave injuries and severe wounds. Hospitals which had been in use for centuries, and had become hot-beds of infection, where the majority of operations formerly were followed by pyæmia, gangrene, and erysipelas, where everything had been tried to combat these evils, where treatment "open," "occlusive," by "immersion," compresses of chlorine water, carbolized water, salicylic acid, even Lister's "gauze" and "paste" had failed, became entirely free from these complications as soon as Lister's system with *all* its precautions had been introduced. Professor v. Nussbaum, Surgeon-General in the Bavarian Army, told me that formerly he operated in his hospital with the greatest reluctance, as nearly every case was sure to be followed by grave accidents, even the opening of a panaritium or the amputation of a finger would cause pyæmia and death; wounds granulating in the most healthy manner, as soon as brought into his hospital, would become gangrenous, and the patient would die, when a few days before he appeared to be on the eve of entire recovery. Now everything is changed. While during sixteen years, in which he had charge of the Munich General Hospital, pyæmia never failed a single month to make its appearance, until at last it seized eighty per cent. of the patients, since the introduction of Lister's system it has absolutely disappeared. The same is the experience of Professor Volkmann in Halle. These are extreme cases, but they prove the more palpably the advantages of antisepsis. Other hospitals of more recent construction and less infection showed, of course, a lesser rate of improvement; but there, also, the rapidity of recovery and entire absence of complications were sufficiently plain proof to induce the surgeons to carry out the system with all the care observed in infected buildings. It has even found its way into private practice, and is used there also with great success.

It is difficult to adduce statistics in favor of a particular system without going into details which would carry me beyond the scope of the present paper. A few examples might perhaps suffice. While in amputations of the thigh we find a usual percentage of deaths of from 76 to 92, we find in the hospital of Professor Volkmann that six consecutive operations of this kind, and one exarticulation at the hip-joint, recovered. Of twenty-seven consecutive amputations, of forty consecutive compound fractures, all recovered. Which other system shows like results? Before the introduction of Lister's system, Professor v. Nussbaum performed thirty four ovariotomies with sixteen deaths (47 per cent.); since then, he made the same operation sixty-two times and lost only twenty-one

patients (34 per cent.)—of the last eight none. Lister's percentage of deaths during the two years preceding introduction of his system was 35, during the three succeeding years 15.

My personal investigations and studies were made with German surgeons, some of whom had become familiar with the system under Mr. Lister's personal supervision. Time and other plans prevented my visiting Edinburgh. In fact, I did not have the intention of pursuing this particular line of study abroad until it was forced upon me by the marvellous results I witnessed.

The purpose of this report is to communicate, in the simplest manner possible, the materials used in this mode of wound-treatment, their mode of preparation as applicable to our resources in the service, and the technical peculiarities of the dressing.

Lister's system is not the application of peculiar dressings or the use of particular antiseptics. It is a method of treating wounds based on the "germ theory," and its principal aim is to prevent the entrance of germs into wounds, to destroy them if already there, and to guard against the accumulation of wound-secretions. In order to attain this end he surrounds the patient with a series of precautionary measures, which have from time to time been improved on by him. These require peculiar materials and appliances, of which I present the latest phase that came under my observation. They are enumerated without particular plan. Where the mode of preparation is not indicated, it will suggest itself; where it is described it is adapted as much as possible to self-preparation, thereby facilitating the introduction of the system by diminishing its greatest objection—the cost. Their use is described as concisely as possible, and will become clearer when I shall treat of the mode of operating and dressing.

1. *Carbolized Solution* (Acid. carbol. cryst. 5, aq. 100) is used to clean the neighborhood of wounds before operation, to disinfect the hands of surgeon and assistants, and instruments, to wash out septic wounds and clear drainage-tubes.

2. *Carbolized Water*, a 2½ per cent. solution of crystallized carbolic acid in water. It is used in the spray and to wet the "lost gauze."

3. *Carbolized Oil* (Acid. carbol. cryst. 5, ol. oliv. 100), to oil catheters or other instruments, or fingers when about to be introduced into some of the cavities. It is also employed when a constant direct contact of the antiseptic with the wound is necessary, as in caries, or where the gauze dressing cannot be applied, as in abscess of the rectum.

4. *Solution of Chloride of Zinc* (8 per cent.), 1 part of liq. zinc. chlor. mixed with 3 parts of water. Where wounds have been exposed unprotected to the access of atmospheric air, or where, from mistake in dressing, aseptic wounds have become septic, they are swabbed out with this solution. It is more effective than carbolic solution, but too powerful for permanent use in the dressings.

5. *The Spray.* In order to prevent the entrance of living germs, during an operation or dressing, a spray of "carbolized water" is directed on the wound. The best instrument for this purpose is "Lister's spray," a steam atomizer which throws a large cone of finely divided spray. It is almost indispensable in long operations and where a considerable space of tissue is exposed. In its absence it may be replaced by the ordinary steam atomizer, of which two ought to be at hand, as they are soouer exhausted. Their suction tube is unnecessary, and a glass tube, drawn to a fine point, and bent at an acute angle, to throw the steam against wounds without necessity of tipping the instrument, may take its place. In the absence of these, or for short dressings, Richardson's spray apparatus may be used. It has, however, serious defects; it gives out frequently without apparent cause, is very fatiguing, and wets the wounds too much, as the spray is not as finely divided as that of the steam atomizer.

6. *The Protective* is oiled silk, coated with copal varnish, to render it impermeable, and then covered with a thin layer of 1 part dextrine, 2 parts starch, and 16 parts "carbolized solution," to facilitate adhesion of the disinfecting fluids into which it is dipped before being applied to the wound. The purpose of the "protective" is to prevent the irritating effect of the contact of the antiseptic with the wound. It is placed immediately over this, overlapping it but little.

7. *The Antiseptic Gauze*, a peculiar unstarched cotton gauze, selected by Mr. Lister on account of the facility with which secretions penetrate its meshes. It is prepared with antiseptics, and thus, after absorbing the wound fluids, it prevents their decomposition. Pieces of cotton gauze, six yards in length and one yard in width, are to be placed in a zinc trough and heated in the water-bath for several hours, after which they are spread out and a hot mixture of one part cryst. carbolic acid, five common resin and seven paraffine is poured over them by means of a syringe. They are then returned to the trough and submitted to pressure for some hours, to cause an even distribution of the fluids. The resin is to hold the carbolic acid more firmly, and prevent it from being washed out or evaporated too quickly. The paraffine diminishes adhesion of the dressing. This gauze is prepared in factories in Germany, the best known being the "International" factory, at Schaffhausen, Switzerland. Its great cost (20 cents a yard in the factory) is a considerable drawback. I have, therefore, tried to replace it by cheaper material, and to prepare it myself, and have successfully used old mosquito netting for this purpose. As this is really the only part of Lister's dressings for which the Army Supply Table does not furnish the materials, it may be of interest to learn how it is done. Old mosquito bars, which have become useless for their legitimate purpose, are steeped, or, perhaps better, boiled in lye, to remove all dirt and render them more hygroscopic. They are then immersed in the hot resin mixture, which may be heated in a tin bucket on the stove. To remove the surplus liquid they are passed through a clothes-wringer, allowed to cool, stretched into shape, and put away in a closed vessel or wrapped up in oiled muslin. The clothes wringer is easily cleaned with boiling water and a cloth. I have used this antiseptic netting with the same results as the imported gauze.

The gauze is used wet with carbolized water in immediate contact with the "protective," folded in about six thicknesses and overlapping the "protective" several inches. The remainder of the gauze is applied dry. Lister considers eight layers, *largely overlapping* the wound, sufficient. Between the seventh and eighth layers he inserts the "McIntosh."

8. *The McIntosh*, common rubber cloth, is used to keep the secretions of the wound from finding their way immediately to the surface, and to compel them to permeate the whole dressing, thus being constantly in contact with the carbolic acid. It is cut an inch smaller than the gauze, that the secretions when about to appear externally may be discovered, while yet lying in antiseptic material. The "McIntosh" need not be renewed with the dressing, but may be washed off with carbolized water and used again.

Catgut is the *sine qua non* of Lister's dressing for ligatures and deep sutures. In a few days it is absorbed and the wounds close over it without danger of its acting as an irritant or permitting hemorrhage. In order to prevent its becoming soft, spongy, and slippery, it has to go through a process, by which it is rendered tough, flexible, and able to resist the action of the wound secretions for a sufficient length of time. It is first shaken up in a carbolized emulsion of one part cryst. carbolic acid (dissolved by addition of 10 per cent. water) and five parts olive oil. It should then be no more disturbed, but set aside in a cool place. The catgut should be kept separate from the watery part of the emulsion. This is most conveniently done by placing a sufficient number of pebbles into the vessel containing the emulsion to support a small disk of glass out of reach of the water, on which the coils of catgut are laid. It takes at least two months before it acquires the necessary qualities. The catgut is used in different sizes, from the thickness of a horsehair to that of twine.

10. *Salicylic Cotton.* Mr. Lister has of late used this to bolster up and fill inequalities of the surface. The salicylic acid not being volatile, and cotton easily impregnated by it, it forms a useful supplement to the gauze. It is prepared by first removing the fatty matter of the cotton, by boiling it in lye or other alkaline liquid. Thus the cotton becomes hygroscopic, which quality may easily be tested by throwing a small ball on water. In its natural state it will not sink,—if prepared it will go to the bottom of the vessel in a very short time. The proportions are about 8 oz. of the acid, 8 oz. alcohol, and 2 gallons of water. The addition of about 20 per cent. of glycerine is said to prevent the disagreeable dusting of the acid.

11. *Sponges.* All sponges used in connection with Lister's dressing, in the cleaning of wounds and absorption of wound-secretions, should be prepared in the following manner: After being carefully beaten, cleaned, and washed out in lukewarm distilled water, they are immersed in the "carbolized solution," and kept there until needed. After use they are washed out in the solution and replaced in the vessel. In this manner they can be used over again as long as they last. In addition to the usual small dressing sponges some larger ones are to be kept on hand. They are applied to wounds the first day after the operation, to absorb the more copious secretion caused by the spray.

12. *Drainage-Tubes* are small flexible rubber tubes, of the size of a small quill to that of a little finger, with numerous openings on the sides, each of half the diameter of the tube. Their use is to facilitate the egress of wound-secretions without interfering with union. One or more are introduced, according to the size and number of angles of the wound, reaching to the bone. They are secured to the skin by a thread drawn through their extremity and fastened by a strip of isinglass or a small safety-pin. They must be cut on a level with the skin, as otherwise the pressure of the dressings will obstruct their lumen. In places where the slippery rubber tube is not easily retained, as in the anus, some lint dipped in carbolized oil might take its place. Of late Mr. Lister adds to the rubber tube several threads of catgut. The tube is removed in a few days, the catgut assisting in the drainage as long as it is necessary and is then absorbed, the outside parts falling off.

13. *Antiseptic Silk.* The catgut is only used in ligatures and deep sutures. For superficial sutures it does not retain its firmness long enough, and silk is preferred in its stead. This is rendered antiseptic by being steeped for an hour in a hot mixture of beeswax ten, cryst. carbolic acid one, and then drawn through a cloth to remove the surplus wax. It is then preserved in a closed vial. In this manner it combines the advantages of the wire with the suppleness of the silk. Septic germs cannot penetrate in the interstices of the fibre, and the wax, besides increasing the hold of the knot, retains a sufficient amount of the antiseptic to destroy any germs which might enter the suture.

I might here, also, mention a method introduced by Mr. Lister to approximate the edges of the skin where from loss of substance this would be difficult, if not impossible, by superficial sutures, as in cancer in the breast when a part of the skin is implicated and has to be removed. A piece of annealed or silver wire is passed through the whole thickness of the flap, some two or three inches from its free edge, and brought out on the opposite side at the same distance. The ends of the wire are fastened over a small lead plate; thus sufficient force can be used to cover almost any deficiency. As many of these wires may be applied as the size of the wound may necessitate. The superficial sutures are then introduced, and a union by first intention may be looked for. The secretions of the wound pass through the drainage-tube. Whenever the neighboring integument seems to have accommodated itself to the strain, the wires are removed by cutting them at one of the plates. I have used this once, with success, after removal of a tumor of the scalp, with a circular loss of skin of two inches diameter, and obtained union *per primam.*

In order to complete the list of dressings pertaining to Lister's system, I must add the preparations of boracic acid, which is claimed to be an antiseptic, milder than carbolic acid, but holding its properties longer.

1. *Boracic Water* (3¼ per cent. solution of boracic acid in water). The boracic acid is obtained from borax by decomposition with sulphuric acid. The water is mainly used to moisten the boracic lint, where this is employed.

2. *Boracic Lint* is prepared like salicylic cotton, which will be mentioned hereafter. It takes the place of carbolized dressings, where these cannot be closely adapted to the skin, as in resection of the lower jaw and in hare-lip sutures.

3. *Boracic Ointment* (Acid borac., ceræ alb., of each 10, ol. amygd. dulc., paraffine, of each 20, fiat ungt.) This is used spread on thin cotton and applied to ulcers and granulating surfaces. It is neatly fastened to the skin by painting the edges over with collodion. I have seen it used with success after ablation of epithelial cancer of the face.

In applying Lister's dressings it must be borne in mind that they promise complete success only in operations where the prescribed precautions for destruction of germs, or prevention of their entry into the wound, have been conscientiously observed. Even the most careful disinfection of wounds which have been exposed unprotected will not always be successful, as germs may have penetrated beyond the reach of the antiseptic. Still even there the probabilities are in favor of antisepsis, and the facility of evacuation of pus by the drainage-tubes, and its disinfection in the meshes of the gauze, which also prevents the entrance of new living germs, predisposes most wounds to rapid healing. We must at all times be thoroughly alive to the fact that the entrance of *one* living germ may destroy the usefulness and render an operation, which otherwise would barely affect a pa-

dient's health, the starting-point of erysipelas, gangrene, or pyæmia. These germs may be introduced by the surgeon's finger, by the instruments, by the very dressings, if any one of Lister's minute directions is neglected. On the other hand, if once a surgeon and assistants understand the system thoroughly, it is the easiest mode of operating and dressing; the rules are so positive that surgery loses its speculation, and a quick recovery can almost with certainty be looked for. A surgeon in one of the large German cities told me he followed Li ter's system, but did not get the vaunted results. He invited me to witness a small operation which he was going to perform "under Lister." It explained to me his want of success. While he thought he followed Lister's rules rigidly, he committed nine grave faults, each of which would nullify their benefits. Still, in case of failure, he would have claimed that he failed in spite of following Lister. Such adherents are his worst enemies. The importance of the lesson may excuse this anecdote.

Whenever elevation of temperature, rapidity of pulse, erysipelas, swelling, diffuse cellulitis, symptoms of pyæmia follow an operation, we may be sure that in nine cases out of ten some fault has been committed—either the discharge has appeared on the surface and been allowed to become septic, or the drainage-tube is closed, or not properly trimmed, or not introduced to the proper point.

The following articles, as a rule, should be at hand before proceeding to an operation: Towels, soap and sponge with warm water; nail-brush and ether; two bottles carbolized water; two atomizers, filled—the second in case the first should fail; basin, with the necessary small sponges, and one or two large ones, soaked in carbolized solution; bottle with the chloride of zinc solution; basin with carbolized solution, to disinfect the hands of surgeon and assistants—the instruments and a piece of gauze should also be kept in this basin; vessel with catgut; vessel with drainage-tubes; bottle with antiseptic silk; and the necessary gauze and McIntosh.

First of all the hair in the vicinity of the place to be operated on must be carefully shaved off. The skin is then to be cleaned with soap, water and a nail-brush, and after that with ether, to remove fatty matter and detritus. The patient is then etherized. Here I must mention that in almost all cases *chloroform* is used in Germany as an anæsthetic, and in a most fearless manner, even for a painful dressing. I was informed by several distinguished surgeons that they never had a death from chloroform in thousands of operations. It is true they had, at times, cases of partial asphyxia and collapse, but never failed, by persistent efforts, to revive the patient. One case was related to me where attempts at resurrection were continued for four hours on a patient to all appearances dead; the heart was, during that time, incited to a feeble action by means of electricity on the phrenici, and slight blows in the precordial region. He finally recovered. I may be pardoned this digression in view of the now general crusade against chloroform in this country.

As soon as the patient is thoroughly anæsthetized the spray is set in operation. Should one of the extremities be the suffering part, Esmarch's bandage and tourniquet are applied in almost all cases. The only exception I know of is where extensive suppuration is going on in the limb, when purulent matter might be forced into the circulation. In that case the limb is simply elevated and a tight tourniquet applied some distance above the seat of operation. The advantages of Esmarch's bandages are too well known to need repetition.

A final washing with carbolized solution is now given to the skin, and the spray is made to play on the wound, taking care not to allow the hand of the operator to intervene. The instruments are taken from the basin as needed, and returned to it as soon as used. The blood is cleared away by the antiseptic sponges. Blood-vessels are secured with the usual forceps and ligated. The ligation in operations performed by the "bloodless method," is done before removing the tourniquet. The place of the large vessels is well known, the small ones are usually found at the intersection of the muscles. The ligation is done with the catgut, care being taken not to use too thick a cord for small vessels, and to make a reef-knot. The two ends are cut off close. The ligature is absorbed or passes off with the discharge, if there is any. Numberless experiments have shown that catgut, if prepared as mentioned above, does not relax until a safe thrombus is formed.

Should, at any time during the operation, the spray cease to work, then the piece of gauze which lies ready in the carbolized water, is to be thrown quickly over the wound, and kept there until the spray is again in proper condition.

The operation being completed, the tourniquet is removed. We may always expect copious parenchymatous bleeding, partly owing to reaction after the elastic bandage, partly because the spray prevents, in a measure, the formation of clots. Arteries which have been overlooked during the previous ligation must now be secured; the rest of the bleeding can easily be stayed by compression or application of cold. The wound is then carefully washed out with carbolized water, no union of the edges is to be attempted until all hemorrhage has ceased. The drainage-tubes are then to be introduced and the superficial sutures applied with antiseptic silk. The personal tact of the operator will show him where and how many drainage-tubes are necessary to facilitate the egress of the discharge. They should in all cases be first dipped in carbolized solution.

The wound is then covered with the protective, dipped in carbolized water, and over this by the lost gauze, that part of the gauze which is applied wet, as described above. Now the spray may be suspended, and the remainder of the gauze is applied.

Here I must digress to show the mode of dressing in wounds which were not made under the spray; after this the dressing is alike in all cases. In fresh wounds it is mostly sufficient to wash them out thoroughly with the carbolized solution. This must be done even in wounds of joints. Where suppuration has already commenced, there the carbolic acid is not sufficient to enforce asepsis. In these cases Lister uses the solution of chloride of zinc, with which the wound is carefully swabbed out. It should be forced into every recess by the pressure of the fingers. Still such cases are always doubtful, and if they do not result favorably the dressing is not always to blame, as the germs may have penetrated beyond the reach of the antiseptics.

We proceed now to the final dressing. A large antiseptic sponge is laid over the protective, and over it the *lost gauze* and the eight layers of gauze, the whole retained in place with broad gauze bandages, cut from the same material. They adapt themselves better than ordinary bandages, do not slip as easily, and have, also, antiseptic properties. A gentle, but firm, compression by them will facilitate the agglutination of the wound-surfaces and the egress of the

discharge. The turns, especially where they are apt to be displaced, must be secured by small safety-pins. Inequalities of the surface, where the gauze does not closely adhere to the skin, must be filled with salicylic cotton, as such places are favorite passages for the wound-secretions.

The first dressing should be removed, at the latest, in twenty-four hours, sooner if the discharges appear anywhere on its surface. The changes are made under spray, which is carefully directed towards the wound, while pins, roller, gauze, sponge, and protective are successively taken off. The protective will be found to have preserved its natural color, if the wound is aseptic. Where decomposition is going on, it shows dark, brownish spots, caused by the action of liberated sulphur in the pus upon the lead of the oiled silk. In this manner it is a delicate test of the success of the antisepsis. Whenever the protective is discolored, the wound must be treated like a septic wound, either with carbolized solution or the chloride of zinc. The spray is to cease as soon as the lost gauze covers again the protective. The changes have to be daily ones as long as the secretions are plentiful. The wound should be interfered with as little as possible—the surroundings being gently cleaned with salicylic cotton or a sponge. If, as usually happens, the surface of the wound closes *per primam*, then two or three dressings will be sufficient. Besides the feelings of comfort or discomfort of the patient, and the staining of the dressing, we find the best indicator as to the necessity of changes in the temperature of the patient's body. Where this is normal, and the bandage unsoiled, we can pass on—everything is right. When the patient's temperature-slate shows an increase over the preceding observation, it will be an absolute indication to remove the dressing and examine the wound. In almost every instance we will find an accumulation of pus, which had not been reached by the drainage, or the tubes are choked, or some slight neglect had permitted some septic changes as shown by the spotted appearance of the protective. A longer drainage tube, a counter-opening with a new tube, syringing with carbolic solution, will remedy the evil, and the temperature falls. The precautions must not be relaxed until the cicatrix is fully formed; a single unprotected granulation has given rise to violent erysipelas.

In conclusion of my remarks on the precautions necessary in the application of the dressings, I wish to state that the paraphernalia of the system are not as intricate and formidable as they appear on paper. In a few days they will become second nature, not only to the surgeon, but to the nurses, even to the patient; the latter will not fail to call attention to the appearance of a stain, and the nurses will no more hand a dressing-forceps without first dipping it in the antiseptic.

This report would be incomplete without the description of a modification of Lister's dressings introduced by Professor Thiersch, in Leipzig. It consists, mainly, in the use of salicylic acid in place of the carbolic. Since the discovery made by Professor Kolbe, that salicylic acid can be cheaply prepared by the action of carbonic on carbolic acid, it has become available as an antiseptic. It is said to have the same properties as carbolic acid, without its irritating effects and unpleasant odor. The results attained by Thiersch seem as good as those of the carbolized dressing, and the method deserves a trial, especially as it combines with other advantages that of cheapness. In place of the gauze, Thiersch uses salicylic cotton; for the spray, salicylic solution (1 in 300); the same for washing of wounds and immersion of the sponges. The instruments are, however, oxidized by it, and should be kept in carbolic solution. The protective is not necessary, as the dressing is not irritating, and may be replaced by a piece of carbolized gauze. He uses two kinds of salicylic cotton, of which the following is the mode of preparation:

1. *Three per cent. salicylic cotton.* Six ounces of salicylic acid are dissolved in one gallon of alcohol, of 0.830 specific gravity, and the whole diluted by the addition of nine gallons of water, of a temperature of 150° Fahrenheit. This is sufficient for twelve pounds of hygroscopic cotton. (Cotton is made hygroscopic by boiling it in lye.)

2. *Ten per cent. salicylic cotton.* Eight ounces of salicylic acid are dissolved in two and a half quarts of alcohol, of the same specific gravity as above, and this diluted with four gallons of water, of 150° Fahrenheit. This is the quantity prescribed for five pounds of hygroscopic cotton.

It is recommended not to immerse more than five pounds of cotton at any one time, in order to have the solution evenly absorbed. After the cotton is soaked through, under a slight pressure, it is piled up (not hung) to dry. The ten per cent. cotton is usually dyed with carmine to distinguish it from the other.

An inch layer of ten per cent. cotton, and over this two inches of three per cent. cotton, are to cover the wound, held in place by gauze bandages. Such a dressing, according to Thiersch, may be left unchanged for a week, by taking care to cover soiled spots with fresh cotton. One or two dressings are said to be sufficient in ordinary cases. Should the patient complain of the tightness of the coverings, they are simply slit open and another bandage applied over them. Increase of temperature, or pain, necessitate a change, as probably retention of pus has taken place. After a week or two the drainage-tubes may be removed, and a dressing applied which will not require change until complete recovery. When a wound is filled with coagula, or in complicated fractures, in large wounds, and in progressive suppuration, Thiersch uses a slight covering of salicylic cotton and applies irrigation with salicylic water, the skin being protected by inunction with palm oil. As soon as the wound assumes a healthy action he changes to the dry dressing. Of late, finding that the egress of wound-secretions was apt to be choked by the cotton immediately surrounding the wound becoming loaded, he advocates the superiority of a kind of hemp, the liber of a species of corchorus, cultivated in Bengal. It is used in commerce for the preparation of mats. Its advantages are, that it absorbs with more facility and is cheaper than cotton. For surgical purposes it is prepared like salicylic cotton.

In concluding this report I must recapitulate its plan, in order that omissions may not be imputed as oversights, and absence of proof as weakness of argument.

I commenced with a sketch, made as concise as possible, of the manner in which I was convinced of the advantages of Lister's system. I had to abandon the idea of giving clinical proofs to convince others, as, in order to have them above criticism, they had to be too elaborate for the intended size of this paper. But it must be remembered that my views concerning Lister's system are by no means isolated or confined to his immediate pupils; they are shared by men of high standing in surgery, like Nussbaum, Thiersch, Socin, Volkmann, not to speak of his English adherents. The advantages of the method are, consequently, sufficiently vouched for to entitle it to trial. The second

part of this paper is designed to facilitate this trial, by describing the materials necessary, the mode of their preparation, and their application. I must again insist that the technical difficulties cannot be surmounted in a day, and a novice will rarely succeed in maintaining complete asepsis. The more he and his assistants become experienced, the simpler the method will appear, and the more success will be assured. The results will amply repay for a little additional pains.

I cannot close this report without expressing my gratification at the reception extended to me abroad, as a member of the Medical Corps of the United States Army, and the facilities given for investigation. I am especially indebted to Professor v. Nussbaum, Surgeon-General in the Bavarian Army, and his able assistants, Drs. Lindpaintner and Winter, for a great deal of practical information.

The sources used in preparation of this paper are Mr. Lister's Lectures, as reported in the *London Lancet*, and the British and Edinburgh medical journals; an article of Professor Thiersch in Nos. 84 and 85 *Sammlung klinischer Vorträge* of Volkmann; an article of R. Volkmann in No. 96 of the same; an article of A. W. Schultze in No. 52 of the same; a report on the surgical clinique in Munich by Nussbaum; a similar report by Dr. Lindpaintner; a similar one on the clinique in Wurzburg by Dr. Angerer. I have, however, mainly relied on personal notes and recollections.

Fort Randall, D. T.

Original Lectures.

ON THE DIAGNOSIS AND TREATMENT OF HEADACHE.

BEING CLINICAL REMARKS MADE

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[Reported for The Medical Record.]

Gentlemen:—The history of the case before us is as follows: Two weeks ago to-morrow this man was obliged to cease work on account of a severe headache. The pain continued throughout the entire twenty-four hours, but was rather worse in the afternoon. It was so severe that he did not sleep well. He had no nausea; there was no disturbance of vision, and he never had a headache which prevented him working, until the present attack. You will notice that his face presents a peculiar yellowish tinge; he is slightly jaundiced. The yellowish streaks run off from opposite angles of the eyes, and similar lines run towards the mouth in a manner peculiar to malarial jaundice. He lives in a malarial region, but has not had well-defined intermittent fever. There is no evidence of specific disease.

HEADACHE AS A SYMPTOM.

Headache is a symptom and not a disease. The difference between a symptom and a disease is simply this: disease means a morbid condition, while a symptom is evidence of the presence of that morbid condition. The one, however, is frequently mistaken for the other. Pain, at all times, is a symptom, and never a disease. Because headache is a symptom, do not undertake to prescribe for it alone. You will frequently be called upon to prescribe for a headache, but you should remember that it may be a symptom of a large number of different conditions of the body, and should not be the only thing aimed at when remedies are ordered for its removal.

Although headache may be a symptom of so many conditions, there is a way to classify them. *First:* We have headache which is due to *organic* trouble. In a great majority of cases, however, headache is not due to organic trouble, but is of a functional character. A functional headache is never steady; it rarely lasts more than twenty-four hours, and its visits are occasional, so that it is marked by perfect intermissions, no matter how frequently it recurs.

One of the striking features of an organic headache is, that there is a continuous sense of discomfort about the head, although the intense severity may at times be modified. You should, therefore, when a patient comes complaining of headache, first determine whether it is organic or not. There may be an intermediate class of cases between those in which the headache lasts only a few hours or a day, and those in which it is a symptom of organic trouble. These are the cases in which the headache is due to some specific fever, such as diphtheria, measles, small-pox, typhus, etc., or else to malarial poisoning. Such headaches are immediate between the functional and the organic. How are we to distinguish the headache dependent upon specific fever from the other varieties? It differs from the functional in the fact that it is more prolonged. The headache of a specific fever is also accompanied by rise in temperature. It is frontal, and that is the characteristic of the headache of any one of these specific fevers.

Now, if a man comes into your office and says he has had headache steadily for four or five days, that he never had it before, look at his eyes to see whether they are suffused or not. They will usually be suffused, if the headache is a precursor of fever. Again, the headache is in the frontal region, and radiates across the top of the head, but is not usually felt behind. Then you will take the temperature and the pulse, which will probably enable you to determine whether or not the headache is symptomatic of some specific fever. In typhoid fever the pulse may remain normal for two weeks, and yet the case prove to be a severe one; in the other fevers this is not the case.

The other intermediate variety of headache is the malarial. This headache may continue from ten to fourteen days—even longer; it does not, however, usually last longer than two weeks. If this is the case, how are we to determine whether it is malarial or not?

As a rule, malarial headache either *remits* or *intermits*. It always sets in suddenly. It often commences at a certain hour of a certain day, and at the same hour of the following days it is more severe than at any other time within the twenty-four hours. A true malarial headache is as violent at its commencement as at any time during its course. In a large proportion of cases there will be times when the patient has either decided chills or chilly sensations. There may be nothing more than the hands getting cold previous to the occurrence of the headache. It is usually frontal and sometimes felt on one side only.

But you may ask the question, is it not possible that the patient has organic headache?

In the first place, what do we mean by the term organic headache?

It is a headache dependent upon some organic change affecting the brain or its membranes, most commonly the dura mater. As a rule, it is exceedingly

violent. When you are called to see a patient who is suffering from a steady, violent pain in the head, so severe that at times he cries out on account of its severity, the presumption is that it is an organic headache. There are no headaches which will give you such examples of overwhelming agony as some of these cases. The pulse, if irregular, is a valuable confirmation of the diagnosis.

A steady, violent headache, therefore, is one of the most prominent signs of organic headache, and I know of no way in which to remove it, except by the use of the iodide of potassium.

It matters not what the cause is; it may depend upon the presence of a tumor of the brain, or upon organic change taking place in the membranes of the brain; but do not use anything else until this remedy has been carried to the point of tolerance. You will know that the point of tolerance has been reached when the peculiar symptoms of iodism indicating an overdose of the remedy have been developed, and it may require thirty grains, or it may require three hundred grains daily in order to bring the patient up to this point. Iodide of potassium is of little or no use in the treatment of any other form of headache. You will often greatly assist the action of the iodide by a dose of ten to fifteen drops of ext. conii fl. and twenty drops of ext. ergotæ fl. Syphilitic headache, although organic, is not usually so violent or agonizing as in the case of tumor, by nocturnal exacerbations. It is often surprisingly relieved by mercury administered in a peculiar manner. Rub up one grain of calomel with sugar and divide it into *thirty* parts. Drop one of these powders on the tongue every ten minutes. Suppose, however, we have to deal with a malarial headache; the case before us, doubtless, belonging to that variety, how shall it be treated?

If you are called upon to prescribe for the relief of a symptom indicating mere functional derangement, avoid, if possible, the administration of more than one dose of medicine for that purpose. For example, we will order for this man twenty grains of quinine, to be taken about one hour before the expected increase in the severity of the headache. In the treatment of fever and ague, when there is an intermission, the remedy is administered upon altogether a different principle.

The administration of the quinine in this case, *i. e.*, fever and ague, should be preceded by a cathartic. It will facilitate its absorption. What is it that embarrasses absorption of quinine in these cases? It is gastric, supervening upon portal congestion, thus hindering the absorption. Quinine, morphine, and all the vegetable alkaloids, if they remain for much length of time in the alimentary canal, and are subjected to the action of the ordinary chemical fluids there, become so changed as to lose largely their special properties. These remedies, therefore, should be given upon an empty stomach. It is not unfrequently the case, as is well known, that quinine, on account of disturbance in the stomach, is not absorbed, even if it be retained. In such cases resort may be had to the hypodermic use of the drug. This man will be directed to take *twenty* grains of quinine each day for four days, then to omit two, on the fourth day to renew it again, and to report at the end of one week.

METHOD OF DIMINISHING THE DOSE OF QUININE.

Is there any means by which the effective dose of quinine can be diminished?

Capsicum combined with quinine will diminish the size of the dose requisite, and the same may be said of ginger and other aromatics. A good dose of capsicum combined with twenty grains of quinine will act as well as thirty grains of quinine without the capsicum. Spices in general stimulate the portal circulation, and promote the flow of bile, and hence their universal use in hot climates. There is a tendency on the part of quinine and capsicum to purge, and sometimes to purge violently. In such cases the purgative action is caused by the increased flow of bile produced by the capsicum. Ginger and quinine, when combined, do not purge, and it makes a very good combination. If the medicine is administered in form of pills, capsicum may be preferable, because of the less bulk required; but, if desirable, the ginger may be given separately, and with the same effect as when combined with the quinine. The proportions should be one grain of capsicum to three of quinine; with ginger, one grain of each.

There is constant failure in the treatment of malarial poisoning by the use of quinine, and nearly always it arises from the manner in which the remedy is administered. The point to be obtained is the quick absorption of the quinine. Suppose, for example, you are called upon to prescribe in a case of malarial poisoning in which there is almost continuous vomiting, as in bilious fever. If there is gastritis present, there will be tenderness upon pressure at the pit of the stomach and in the region of the gall-bladder; there is apt to be some swelling of the epigastrium, and the patient vomits as soon as anything is taken. It is useless to administer quinine by the mouth under such circumstances, because the excessive irritation which it produces upon an inflamed mucous membrane causes its rejection at once. If injected into the rectum under the same circumstances, it will not succeed any better, because rectal absorption is diminished on account of portal obstruction.

Now, if you will apply two or three leeches at the epigastrium, the vomiting will be arrested almost certainly, and you will be able to get the quinine absorbed. Do not use either mustard or blisters here to arrest the vomiting, for they are vascular stimulants. Topical blood-letting, on the other hand, is a prompt vascular sedative.

Progress of Medical Science.

EXCRETION OF INDICAN AND LIME IN DISEASE.—Prof. Senator, of Berlin, has discovered a very easy and rapid method of examining the urine for indican, which he now employs constantly in place of the troublesome and slow method of Jaffe. A fixed quantity of the urine to be examined is taken, and on the addition of an equal quantity of fuming muriatic acid, a dark blue cloud is frequently produced at once. This becomes more distinct in the careful addition guttatim of a saturated solution of the chloride of lime. The operator must be careful not to add an excess of the lime, as the cloud would thereby be decolorized. The indigo which is developed from the indican by this procedure may be extracted by means of ether, turpentine, or best of all, by chloroform, which combines with the indigo rapidly and completely, and falls with it to the bottom of the glass. The quantity of indigo present can be roughly estimated from the coloration of the chloroform. The method takes no more time than, and is at least as exact as the usual method of examination for albumen.

Prof. Senator does not agree with Jaffe in ascribing the increase of indican in the urine to the decomposition of food in the intestine, since the increase is greatest in cases in which the intestine contains little or no food. In peritonitis and ileus, it is true, large quantities of indican are found in the urine, but in these diseases very little food is taken, and most of what is ingested is vomited again almost unchanged. In the later stages of these affections moreover, the vomited matters consist mainly of greenish mucus, and after death little or no food is found in the intestinal canal. Prof. Senator found the excretion of indican in the urine enormously increased in cases of cavernoma ventriculi, although very little food was taken into the stomach. He also found it increased in cases of other malignant abdominal tumors, and of ulcus ventriculi, in acute febrile diseases, in pulmonary consumption, and in pernicious anæmia and leukæmia. Finally he has met with a similar increase in four or five cases of *idiopathic atrophy of the kidney* which was not accompanied by any disturbances of digestion. The combination of increased excretions of lime and indican has already been noticed in these columns (No. 352).—*Berliner klin. Wochenschr.*, Oct. 1, 1877.

Metallotherapy at the Salpêtrière.—M. Burg has based a system of therapeutics on the now universally admitted fact, that the application to the skin of certain metals, such as gold, zinc, and copper, in the form of bracelets, will cause the return of sensibility in cases of hysterical anæsthesia. To ascertain how far this system is tenable, M. Charcot has administered internally to five patients at the Salpêtrière, the same metals that were found to be active when applied externally. The first patient had presented the most varied forms of hysteria for eleven years, and at the time the metallic treatment was begun, was suffering from complete left hemi-anæsthesia. The application of the gold bracelets produced a return of sensibility. On June 11th the internal treatment was begun with one-third grain of the chloride of the oxide of gold and sodium. In twelve days the sensibility was normal, and at the end of a month the patient had gained thirteen pounds in weight. The recovery has been apparently complete. In the second case the recovery was equally rapid and complete. The third case was one of hystero-epilepsy; the hysteria was cured, but the epilepsy persisted. The fourth patient was also suffering from hystero-epilepsy. She was sensible to copper, and for a time improved rapidly under the use of copper bracelets. She finally became insensible to the external application of the metal, and was then placed on the internal use of the hydrated binoxide of copper, and the waters of Saint-Christau. Of the former, at first two-fifths and afterwards four-fifths of a grain were given at a dose. After a time it was replaced by the albuminate of copper, the dose of which was gradually increased to one and one-half grains per diem. The improvement was satisfactory until the patient refused to take the medicine. The fifth and last case had also begun to improve, when she refused to take the medicine. One case of obstinate hysteria in M. Hardy's service proved entirely refractory to the metallic treatment both external and internal.—*Gazette des Hôpitaux*, Sept. 29, 1877.

Action of the Sulphate of Quinine on the Fœtus and the New-born Child.—In a paper published in the *Annales de Gynécologie* M. Burdel maintains that when a pregnant woman, no matter what be the term of the pregnancy, is attacked with intermittent fever, she is liable to abort seven times out of ten, unless she is treated with quinine. It is very generally believed that this drug will itself cause abortion, but M. Burdel reports several cases which demonstrate that enormous doses of it can be taken without injury to the embryo, and without shortening the course of the pregnancy. He denies that malarial fever can be transmitted to the fœtus in utero, or to the nursing infant through the milk of the nurse. He has never known infants to suffer from fever or other malarial symptoms before the fourth month. He has, on the contrary, frequently observed young infants fed entirely on the mother's milk to remain fresh and rosy, although the mothers themselves were devoured by fever and reduced to a state of profound anæmia. This immunity, however, does not persist after the process of dentition begins.

M. Burdel has devoted an important portion of his paper to the study of the action on the new-born child of the milk of a woman who is taking sulphate of quinine. Nothing is more variable and inconstant than the transmission of medicines, and of quinine in particular, by means of lactation. He has known children to be fatally poisoned by the milk of women who had been brought under the influence of this drug. He has deduced from his observations a certain number of facts, on which rules for the administration of quinine may be based. Thus he found that the drug was absorbed more rapidly, and was contained in larger quantities in the milk when it was given on an empty stomach; on the contrary, when administered with the food, it appeared in the milk less rapidly and in smaller quantities, and was consequently less toxic. As the infants advance in age they become less susceptible to the influence of the quinine in the milk, and after they attain the age of five or six months cases of poisoning rarely occur. When it becomes necessary to administer quinine soon after delivery, its injurious effects on the child may be prevented by giving it with the meals or with some food, and by emptying the mother's breast artificially three hours after its administration. When these precautions are observed, M. Burdel claims that the infant may be allowed without fear to nurse the mother during the entire time that she is taking the quinine.—*Journ. de Méd. et de Chir.*, October, 1877.

Supraperiosteal Abscess.—A paper with this title, by Dr. Duplay, was read in the Surgical Section of the *International Congress of Geneva*. The only form of periosteal abscess that has hitherto attracted much attention is the subperiosteal, but Mr. Duplay places alongside of it another variety, to which he has given the name supraperiosteal. It is a collection of purulent matter close to the bone, formed at the expense of the external layers of the periosteum and the neighboring cellular tissues. The bone is not denuded. These supraperiosteal purulent collections are due to various causes, the most frequent being bad hygienic conditions and scrofula. The affection may be acute or chronic. The acute form may be distinguished from the subperiosteal abscess, by the facts that its borders are less sharply defined and the general symptoms are less severe. The chronic form may be distinguished from chronic periostitis by the absence of thickening of the bone around the focus of disease. After the abscess is opened, cicatrization takes place slowly.—*Lyon Médical*, October 7, 1877.

The Catholic University of Paris.—The Archbishop of Paris recently presented to the Minister of Public Instruction, on the part of the Catholic University of Paris, a petition praying for the recognition of the university as an establishment of public utility.

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THE LESSON OF A BOARD OF HEALTH PAMPHLET.

A BRIEF, but very explicit and practical report upon defective plumbing and house-drainage in this city, prepared by Sanitary Inspectors C. P. Russell, M.D., W. H. B. Post, M.D., and T. J. Nealis, Sanitary Engineer, and illustrated with simple diagrams as to the best methods of constructing and arranging traps, waste-pipes, soil-pipes, and sewer-pipes, has just been published by the Board of Health, after careful examination and approval by the Sanitary Committee. While the pamphlet enters into no discussion of the larger aspects of the subject, one of the most important in the department of public medicine, it condenses the leading principles of sanitary engineering and plumbing into a few simple rules which should be placed in the hands of every plumber in this city, by way of convincing the members of that obstinately ignorant fraternity that it really is not an essential necessity of their business to hold themselves responsible for twenty-five per cent. of the deaths that occur from zymotic diseases, the larger mal-engineering that controls the general administration of the sewerage system being responsible for most of the seventy-five per cent. remainder.

The general subject of inefficient house-drainage and sewer-gas poisoning has, of late, given scope and direction to some of the most brilliant and exact scientific investigations in this country as well as in England, where a literature of the sewage question at once theoretically brilliant and practically valuable and exact, has been developed within the last ten years. While the germ theory of diseases has not, perhaps, been established by these investigations, and while the special manner in which defective drainage and sewerage systems in cities and towns eventuates in such diseases as enteric, typho-malarial, intermittent, and cerebro-spinal fever, in diphtheria, scarlatina, cerebro-spinal meningitis, etc., etc., has not been conclusively made out, the fact that they are constant factors in the causation of such diseases has been demonstrated beyond a doubt. So that, whatever may be our view as to the part played by bacteria, micrococci, and other minute forms of life in diseases of the zymotic type, the practical point that defective drainage and sewerage are directly concerned in their generation has been placed beyond controversy. Dr. Pinkham's valuable notes on the causation of the recent diphtheria epidemic in Lynn, Mass.; Dr. Gerrish's penetrating review of the sanitary condition of Portland; and the recent work of the Connecticut Medical Association as to the causation of the almost epidemic intermittent of late years in several counties of that State, furnish brilliant recent examples of the efficiency of the statistical method in working out the apparently inexplicable problems of public medicine, and add so many pamphlets more to the direct evidence of a constant relation between defective drainage and sewerage and zymotic and diarrhœal disorders. It is not now denied in any quarter (except, possibly, by Dr. Dunsmore, of Vermont) that the emanations of drains and sewers, if permitted to penetrate into dwelling-houses, are not only detrimental to the general health of inmates, but liable and likely to eventuate in certain specific diseases. But, although our people are now generally aware of the peril and of its specific nature, there is, as the report under consideration very justly observes, a truly remarkable ignorance, even among the most intelligent classes of the community, including the medical profession itself, of the manner in which these poisonous gases effect their insidious entrance, and of the methods available for their exclusion. This is, in a measure, pardonable; our literature of sanitary science being of comparatively recent origin, its data scattered and inaccessible to the average practitioner, and its conclusions local, fragmentary, and often conflicting. For almost the only large and comprehensive investigation as to the contamination of well-water and its relation to local outbreaks of typhoid fever, for instance, the physician must consult the voluminous reports of the State Board of Health, Mass., as well as for a thorough study of the contamination of rivers and the relation of such contamination to zymotic diseases in the manufacturing centres dotting their margins. On the other hand, when thoroughly examined, the reports of the New York Board of Health furnish the most valuable statistical data as to the agency of defective drainage and sewerage in the production of epidemics; although these data must be collected from scattered statistical tables, the bearings of which are not always sufficiently indicated, and the value of which to the practitioner is therefore materially impaired.

The epidemic of cerebro-spinal meningitis that commenced in January, 1872, presents an illustration in point. During the first three or four months of its

prevalence the epidemic was almost entirely limited to the margins of the original watercourses of the city, and to districts resting upon water-saturated soil. Subsequently it developed itself throughout the more thickly populated sections, in constant association with overcrowding, faulty ventilation, and defective house-drainage. Isolated cases occurred in localities where these conditions did not presumably exist; but careful investigation was uniformly successful in disclosing unsuspected defects in the last particular, and thus the apparent exceptions furnished striking verifications of the agency of defective sewerage in the causation of the epidemic.

In a similar manner the scarlatina epidemic of 1870 was restricted to a well-defined territory occupying a narrow valley between One Hundred and Second and One Hundred and Tenth Streets, and extending for about a square east of the Old Bloomingdale Road—a depression but thinly inhabited, and the very symbol of defective drainage. Formerly it had been drained by several sluggish watercourses, converging from various quarters, and uniting into a single current that crossed the road by a culvert, wound lazily along a little valley, and joined the Hudson at Stryker's Bay. The culvert being an insufficient outlet during heavy rains, the valley behind it was frequently saturated, dwellings were inundated, privies invaded, and an epidemic of scarlatina punished the city for the stupidity of an engineer.

A third instance in point occurs in the epidemic of relapsing fever which forms the most important sanitary event of the report for 1870, and was traced to a dilapidated rookery in Mulberry street, occupied by three families who carried on a business of letting lodgings to vagrants of the lowest class. Cases were also identified in contiguous lodging-houses in Baxter street a month later, and thus from several centres the fever radiated. There were good grounds for believing that the original centre of the disease was one of the lowest and dampest cellar lodgings in Baxter street, the squalid tenements of which lie along an original depression extending from the Five Points to the river, the soil of which is constantly saturated with water holding in solution the surface filth of a thoroughfare of vagrancy.

Taking up the group of zymotic diseases member by member, in this manner, and comparing their statistics and centres of activity year by year with the actual state of the drainage and sewerage system, the inference is evident that the absorption of sewage matter or of sewage emanations plays the leading part in inducing outbreaks. In the rural districts contaminated well-water figures prominently in the generation of typhoid, and by English observations the fact that the seeds of the fever may be transported for leagues by railway, and distributed by milkmen, by means of milk adulterated with such contaminated water, has been established. Indeed, the investigations of a commission of English microscopists appointed for that purpose, have pretty conclusively evinced that the agent of propagation in enteric fever is the germ of a minute vegetation, discovered by a German microscopist as usually existing in well and river water contaminated with sewage. It is a familiar fact of medical science that the severest outbreaks of typhoid in the rural districts in this country, occur during periods of drought, when the wells are, as a rule, at their lowest, and it has been pointed out by Pettenkofer that in German cities and towns a direct relation exists between the subsidence of the wells to their lowest standard of water-supply and the local prevalence of the fever. Curious as the fact may appear, however, as a verity of medical statistics, the latest conclusions of German medical literature, as represented by the *Deutsche Medicinische Wochenschrift*, of Berlin, furnish undoubted evidence that the larger view of a constant relation between defective drainage and the fever is the true one. Before sewers were introduced in Hamburg, for instance, the seven years (1838–44) had a mean mortality from typhoid, as compared with the whole number of deaths, of 48.4 per 1000. During the nine years while their introduction was in progress (1845–53) the rate fell to 39.3; during the first eight years after their completion, to 29.3; during the second eight, to 25.7. For the three years 1872–73–74, the mortality from this cause was only 2.68 for the districts in which the sewerage system was perfect, 3.2 in a certain quarter where sewers were in progress, and 4.6 in the suburbs where no sewers existed. In two of these outlying and airy villages the mortality from the fever was 7.0 and 6.6 against 2.68 in the thickly populated central portions. In Halle, from 1852 to 1861, the typhal mortality was 36 per 1000, and rose during the epidemic of 1862–63–64–65 to 194, 215, 254, 166. The introduction of a new water supply in 1870 brought it down to 14. The conclusion of the writer, one of the most celebrated medical authors in Germany, after reviewing masses of data, of which the preceding are only average specimens, is that the contamination of drinking-water by sewage soaking into the earth is the special cause of the disease in German cities and towns. A series of conclusions, merely expansive of the main point established by German statistics, was arrived at in the discussion of the subject by the recent International Medical Congress at Geneva; but nowhere, perhaps, are to be found such abundant illustrations of the fact that local defects in drainage and sewerage become local centres of typhoid, typho-malarial, relapsing, scarlet, or other zymotic fever, or of cerebro-spinal meningitis and diphtheria, as are furnished by a patient analysis of the statistics of our Board of Health, with the necessary topographical maps and the data as to defective drainage and sewerage in different quarters of the city at hand, to give point and perspicuity to the dry columns of cases, street, and number.

Unfortunately, public sentiment is not yet prepared to sustain the radical correction of defects in our drainage and sewerage systems, which modern sanitary science suggests; and the Board of Health is compelled to make the best of deficiencies which should have been provided against by competent sanitary engineering while the laying out of the city was in progress. The little pamphlet issued by the Board, therefore, very properly avoids radical questions, and is content with suggesting and emphasizing the two important points of adequate ventilation and adequate trapping. The first is most readily effected by a ventilating shaft tapping the waste and soil pipes and opening upon the roof, or a few feet above it, in such a manner that a free passage of the upper air through the whole net-work of pipes is substantially secured. The Sanitary Inspectors also recommend a rear roof leader emptying into the sewer-pipe. The vicious practice of trapping at the junction of the waste and soil with the sewer-pipes prevents the free passage of air through the former. On the other hand, the house-sewer should be effectually trapped at a point between the entrance of the waste or soil-pipe into it and its junction with the street sewer—a method at once simple and effective.

It would be premature at present to discuss the bearing of sewage utilization upon public health, although the data for arriving at valuable conclusions are abundant, and the question must become one of the practical issues of applied science within the next few years.

THE STUDENTS AND THE LIBERAL CLUB.

THE students of the College of Physicians and Surgeons of this city have been greatly exercised regarding the arrest of two of their number for ostensibly disturbing a public meeting of the Liberal Club, held in the college building. It appears that a member of the club in question, in a paper on "medical intolerance," severely criticised the action of the faculty in regard to certain matters connected with college government, and thereby aroused the ire of the students. At a subsequent meeting of the club, on the occasion of the reading of a paper by another member, also a physician, some equally obnoxious remarks were made. Several students, who were present, manifested their disapproval of the sentiments by hisses. This was the commencement of a disturbance, which, in consequence of a deliberate insult offered to the students by one of the members of the club, culminated in an uproar. The meeting broke up in confusion with the arrest of two of the supposed ringleaders. After spending a night in jail, and beguiling the small hours by "quizzing on anatomy" and singing hymns, they were brought before the magistrate, and, in the absence of any definite charges against them, were duly liberated. These, we believe, are the facts of the case, and now for the comment. While we admire the enthusiasm of these young gentlemen in defending the cause of medicine, and in upholding the decisions of their faculty, we do not think that the end justified the means. There was no real necessity for noticing the obnoxious tirades against medicine in general or themselves in particular. In being tempted to do so by the remarks of the ex-clergyman they have committed an error of judgment, which in their cooler moments they will see better than at present. His allusion to them as candidates for wholesale murder was the merest twaddle of ignorant assurance, and was beneath their contempt. We make every allowance for the hot blood of enthusiastic youth, but this cannot excuse them from disturbing a public meeting. The hall was hired by the so-called "liberals," and for the time being belonged to them. It would have been much better for the students either to have remained silent or to have left the room, as even in such a gathering their presence was only conditional with what by the meeting might be considered good behavior. They placed themselves in the power of the club, which gladly seized the opportunity for public martyrdom. The faculty has taken the responsibility of hiring the hall to these obnoxious persons, and it is compelled to secure them peaceable possession. It can do nothing now, save learn a lesson as to its course in future—not to rent the college building for any other purposes than those for which it was originally intended. As regards the students, we hope that the milder counsels will prevail, that no more uproarious behavior will be tolerated, and that any redress for insults offered or wrongs inflicted will be sought in the proper legal manner. As an initiative, the prosecution of those parties causing the arrest on a charge of false imprisonment is eminently proper, and well calculated to settle all doubtful points.

Reviews and Notices of Books.

LECTURES ON PRACTICAL SURGERY. By H. H. TOLAND, M.D., Professor of Principles and Practice of Surgery, etc., Medical Department University of California. Philadelphia: Lindsay & Blakiston. 1877. 8vo, pp. 508.

As its title indicates, this book comprises a course of lectures on surgery. The author, on account of want of time to write a book, an excuse which ordinarily is a very poor one, but in this instance is acceptable, concluded to "*talk* a book." In other words, the volume is made up of phonographically reported lectures on the principles of surgery, with numerous illustrations from the lecturer's experience. Although the course is far from being complete, it extends over a wide range of subjects, and is full of practical suggestions to the students. The author understands how to bring out the salient points of a subject, and well deserves his reputation as a successful teacher. To those who have attended his lectures, this work will be a valuable and interesting souvenir. Some of the cases reported are worthy of a more permanent and

available record. As it is not intended as a complete text-book for the student, all we can say of it is that it abundantly answers the purpose of its publication, and will be well received by the author's students and friends.

THE PRACTITIONER'S REFERENCE BOOK. Adapted to the Use of the Physician, the Pharmacist, and the Student. By RICHARD J. DUNGLISON, M.D. Philadelphia: Lindsay & Blakiston. 1877. 8vo, pp. 335.

IT is difficult to define the scope of this work. Perhaps the best idea which can be conveyed of its character is, that it is a curious collection of almost all sorts of odds and ends. It may be safe to say that in no single work has so much of the kind of information, which is generally called practical, been collected before. If the practitioner or student fails to find any out-of-the-way information, he has an even chance of stumbling across it in Dr. Dunglison's reference book. Under the heading general information for the practitioner, the subject of weights and measures is exhaustively discussed in all its different relations to the metrical system. Then follow remarks on solubility of medicines in water, alcohol, ether, and glycerine, abbreviations in common use, and comparison of thermometric scales. The therapeutical and practical hints embrace some very practical directions regarding examination of patients, doses for internal administration, injection, baths, etc., incompatibles, selected prescriptions, rules for the management of children, obstetric memoranda, examination of urinary deposits, classification and treatment of poisons, how to restore breathing by Hall's and Silvester's methods, the principles of disinfection, dietetic rules and precepts, and very appropriately at the last, detailed directions are given how to conduct a post-mortem examination.

The amount of varied and exact information required in writing such a book is such that few who had not the extensive reading and wide culture of the author, would undertake the task.

MEDICAL AND SURGICAL REPORTS OF THE BOSTON CITY HOSPITAL. Second Series. Edited by DAVID W. CHEEVER, M.D., and F. W. DRAPER, M.D. Boston: 1877. 8vo, pp. 316.

THE present volume includes the experience of the second five years of the existence of the Boston City Hospital, and is filled with interesting accounts of the medical and surgical cases. The volume opens with a description of the hospital, as it enlarged and improved within the period embraced in the history; then follow papers on medical and surgical subjects by the members of the staff. To give some idea of the scheme of the work it will be necessary merely to give the title of the various articles which compose the present volume. I. The Treatment of Empyema by Permanent Openings, with Cases, by John G. Blake, M.D. II. On Certain Diseases of the Nervous Centres, by Robert T. Edes, M.D. III. Compound Fractures, by Geo. W. Gay, M.D. IV. Albuminuric Retinitis, by O. F. Wadsworth, M.D. V. Case of Large Renal Calculi, by C. Ellery Stedman (with lithographs by W. P. Bolles, M.D.). VI. Disease of the Brain in its Relation to Inflammations of the Ear, by J. Orne Green, M.D. VII. Notes of Cases of Pleurisy and Paracentesis Thoracis, by Hall Curtis, M.D. VIII. On Excision of the Elbow-Joint, by David W. Cheever, M.D. IX. Clinical Notes on Erythema, by Howard F. Damon, M.D. X. Sclerosis of the Spinal Cord, by S. G. Weber, M.D. XI. Cold-Water Treatment of Typhoid Fever, by Robert T. Edes, M.D. XII. Surgical Abstract (of Interesting Cases), by David W. Cheever, M.D. XIII. Cases with Autopsies, by W. P. Bolles, M.D. (Pathologist). XIV. Significance of Pus in Ovarian Fluids, by James R. Chadwick, M.D., and lastly, tabulated Statistics of Major Operations, by B. F. Gorman, House Surgeon. We should be most happy did time and space permit to review this remarkably interesting volume in detail; suffice it to say, however, that every progressive student, and especially every hospital practitioner, cannot fail to be edified by its perusal. We have enjoyed it from beginning to end, and cannot say too much in praise, either of the manner in which the subjects have been treated by the different authors, or of the subjects themselves, each and all of which are of rare value to the practitioner as embodying the experience of able and progressive men connected with one of the first hospitals of the country. Not having seen the first volume of this series, we are unfortunately unable to make any comparison between the two; but if it is equal in interest and value to the one before us, it is an invaluable addition to a working library.

It is elegantly printed, and well illustrated with steel engravings, chromo-lithographs, woodcuts, and lithographs.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Special Meeting, Nov. 5, 1877.

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

"IS THE HUMAN EYE CHANGING ITS FORM AND BECOMING NEAR SIGHTED UNDER THE INFLUENCE OF MODERN EDUCATION?"

DR. E. G. LORING read an exceedingly interesting and valuable paper upon the above subject, and began by stating that all eyes, so far as their optical condition was concerned, might be divided into three classes, the normal, the far-sighted, and the near-sighted. A near-sighted eye was one the length of which was too great, so that the question might be put, "is the human eye, under the influence of intellectual pursuits, gradually increasing in length?" A direct answer to that question was contained in Ribot's late work on heredity, in which it was affirmed "that since constant study creates myopia, and hereditary influence most frequently perpetuates it, the number of short-sighted persons must necessarily increase in a nation devoted to intellectual pursuits."

This was the opinion of the majority of those who had paid most attention to the subject, and it became a matter of great importance to investigate carefully the evidence upon which that belief was based. It rested principally on two factors: *First*, the influence of heredity, and, *secondly*, on that of close application of the eyes. In regard to heredity there was little or no statistical evidence of any scientific value, but such as did exist certainly did not show a marked hereditary tendency. Thus the statistics gathered by Dr. Loring, from over 600 persons, showed that only about six per cent. had either father or mother myopic, and that was corroborated by what had been found by Cohn and Emmert. What might be termed legendary testimony had been handed down from the remotest time, and the conviction that myopia was hereditary had been firmly fixed in minds of all people from the remotest past, and traditional evidence of such a character was apt to be virtually if not cate-

gorically true. The influence attributed to heredity had been, in the mind of the reader of the paper, exaggerated probably from a want of attention to that secondary law of heredity known as the law—or, rather, since the principles on which it acted were almost unknown—the *fact* of reversion, through which an organ, after having been modified, returned to its original condition in a future generation. One of the principal factors which influenced this return to the normal condition would, in the author's opinion, be the state or degree of perfection of the organ for the performance of its function. The normal standard as it now existed could be demonstrated mathematically to possess the widest range of vision with the least effort to the beholder, and as this condition would be more advantageous for man in a savage state than in a civilized condition, it would in all probability be developed early and long maintained. Consequently no change would be apt to take place in its form unless a great change had also taken place in the nature of the "conditions of its existence"—a change which should be brought to bear, not on a few individuals, but on the community at large; and not on one sex alone, but upon both sexes alike. In the author's opinion we need go no further to look for such a change than in modern devotion to literary pursuits, and especially to that phase of it denominated compulsory education—a force of great power, of modern origin, and rapidly extending development. This brought the author to the consideration of the second factor in the production of near-sightedness—the prolonged use of the eyes.

Over fifty years ago Ware, the famous English oculist, pointed out the fact that myopia was more frequent in the cities than in the country, where the application of the eyes was less, the objects greater and at greater distances, and that the amount of myopia increased with the amount of study and within certain limits with the age of the student. These observations had been corroborated by the elaborate investigations of Cohn, in Germany, and by many observers in other countries. As an example of the manner in which the investigations were made, Dr. Loring referred to some tabulated charts, in which the increase of myopia was shown by curves, expressing in per cent. the gradual increase of near-sightedness from the younger to the older years of school life. The charts represented the results of an examination made by himself and Dr. R. H. Derby, of this city, upon the eyes of 2,265 pupils in the public schools of New York, over 4,000 in Russia, and over 3,000 in Germany. In the American diagram the myopia rose from less than 4% at 6 years to 26% at 21 years; while in Russia it rose from 11% to 44%, and in Germany from 10 to the enormous amount of 63%. In all the statistics ever made the same increase, vary as it did in degree in the different countries, was invariably noticed. The statistics made by himself and Dr. Derby did not vary materially from those made previously by Drs. Prout and Mathewson, of Brooklyn, Dr. Cheatham, Dr. William Ayres, Dr. Callan, and others. Most of those statistics were compiled by Dr. Webster, and afterwards published by Dr. Agnew.

From such statistics alone it had been assumed by many that the increase in near sightedness was directly proportionate to the amount of work, but it was to be remembered that, as near sightedness might, and often did, result independently of study, the later years of life would always show a greater percentage of myopia, produced oftentimes by other causes. It was necessary to show that myopia was more frequent among those who studied more than among those who studied less at the same age. Ware and Cohn had done this, the latter showing that while the scholars in country schools showed less than 2%, those in cities of the same ages showed 10%. Erismann showed that of those scholars who studied two hours out of school, 17% were myopic; of those who studied four hours, 29%; and of those who studied six, 40%.

It had been shown by undoubted evidence that near-sightedness was greater in Germany than in any other cultivated nation. Donders had declared that in no other nation in Europe had he found it so prevalent in every rank of life as in Germany, and the same was true of those of German parentage in this country. Thus Dr. Loring found that of the scholars of German parentage there were 24% near-sighted. Of the American, 19%, and of the Irish only 14%. It did not follow, however, that German near-sightedness was due to over-study alone, for there were many other factors in force among them which did not exist, or existed to a less degree, in other nations, such as peculiarities of food, want of out-door exercise and indifference to ventilation, combined with a general sedentary life, all of which favored that laxity of tissue which found its expression in the eye in the distention of the investing membrane, which was near-sightedness.

It has been shown that the most studious nations were the most near-sighted, and it ought to follow logically that where the near-sightedness was less the cultivation and literary achievement would also be less. It was universally admitted that the English were much less near-sighted than the Germans, and less even than the Americans—and yet no other nation in the world could show such a list of brilliant names in every department of literature for the past 400 years as England. That could note hav been produced without a corresponding use, often excessive, of the eyes. And it was the same in her arts and sciences. Superior to Germany in all her mechanical arts, the English mechanic was nevertheless far freer from myopia than the German. What, then, was the reason of this? It seemed to the author that it was due principally, if not solely, to the most important fact which could in this connection be brought to the attention of his hearers, and that was that myopia was a disease of childhood, being formed almost invariably in childhood, or at the most, in early adolescent life, while the tissues were elastic and yielding. The great time for its development was between the eighth and fifteenth year. After the sixteenth or eighteenth year, over-use of the eyes might produce other and graver diseases of the eye, but it would not produce near-sightedness. It was the observation of that fact, whether consciously or unconsciously, that had made England so eminently a literary nation, and yet so free from near-sightedness, while it was the violation of it, that is, the compelling of a great amount of study at a tender age, which had made Germany the shortest-sighted nation on the earth. That also explained why it was that hitherto so many mechanical callings which required long-continued tension on small objects, such as jewellers, watch-makers, engravers, draughtsmen, and type-setters did not show nearly as great a tendency toward myopia as the literary and professional occupations. Until very recently the early education of apprentices to skilled labor was neglected. They had but little school-learning, did not even approach the niceties of their calling till the sixteenth or seventeenth year, and then only very gradually. Their work was moreover often interrupted and often changed; and when they did arrive at what required close or even excessive application of the eye, the

dangerous time for the development of myopia had passed. That was very different from what obtained with the student whose closest, most confining, and arduous tasks came just at an age when he was least able to bear them.

From what had preceded a doubt had arisen in the author's mind whether the results gained in Germany in the last half century, or since her method of compulsory education (1812), had been proportionate to the tremendous expenditure of force used, and whether that reverence for, and dependence upon authority—that endless and accumulative repetition of the works of others, without which no task is ever performed, had not discouraged her originality and crippled her invention.

The conclusions arrived at were that there was an hereditary tendency to myopia, though its degree had not yet been established, and that the amount of near-sightedness was, other things being equal, proportionate to the amount of study. It was the author's opinion that if compulsory education was carried out in its original meaning and applied to every child, the amount of near-sightedness must necessarily increase, and that if Germany was going to be the type, not only the educated classes, as the term was now understood, but also the world at large, would in time become near-sighted. On the other hand, by attention to the simple law of controlling the time of life at which the use of the eyes was carried on rather than the amount, the present standard, or normal eye, formed in the remotest past may be continued indefinitely.

In finishing his paper, Dr. Loring remarked that two questions had presented themselves to his mind, while making his investigations on myopia in the public schools. One was whether the word instruction was always synonymous with education, and the second, whether, while we were reducing the number of those absolutely blind in our asylums by improved methods of operation and treatment, we were not, by over-use of the eyes at school, laying up a future evil which, though milder in form, would from its very frequency entail a greater and more lasting detriment upon the race.

The paper being before the Society for discussion,

Dr. John C. Dalton expressed his commendation of the opinions advanced by Dr. Loring relating to early education. He also doubted whether excessive education of young children was to be of benefit to the race at large. He was not disinclined to believe the remark once made that "some children were educated beyond their capacity." It was quite a prevalent idea that the more education a child received the more capacity it would develop in after years, but that was very questionable. Parents were pleased to see their children do better than other children in various studies, and in general the younger and more precocious the child, the more they were pleased; it often became a matter of personal vanity upon the part of parents. Athletes made the same mistake as studious men. They thought that if they could lift a 180 pound dumb-bell they were in good condition, but the fact was that development of muscle alone did not give bodily vigor. Dr. Dalton did not in any sense wish to be understood as depreciating intellectual cultivation, but he had grave doubts as to whether such cultivation was synonymous with the reading of books.

Dr. H. D. Noyes remarked that he could add but little to the valuable statements made in the paper. He had never before heard it stated that it was a fact that the organs of special sense were less likely to be subject to the influence of heredity than other organs of the body.

It certainly seemed true, however, that heredity did not have a large influence in the production of myopia. He had an impression that if there was any malformation in consequence of that influence, it was in the form of hypermetropia, for that defect could be traced in families much more frequently than could myopia. That would at least be an interesting item for examination, and might yield some useful results. He thought that the concluding portion of Dr. Loring's paper, after all, contained its most essential feature. Prolongation of the eyes resulting in myopia was evidence of "laxity of tissues." The defect, in a large proportion of cases, was found in those whose general vigor was not up to the normal standard.

He fully coincided in the opinion expressed that the small percentage of myopia occurring among the English was, in a great measure, because of their great robustness in general health. The same remark, to a certain extent, might be applied to our own country. We were abundantly capable of enduring fatigue, and that was essentially the same as power of resistance in tissues. The Doctor fully concurred with the remarks made by Dr. Dalton. The question of myopia was one that was closely related to physical development. As this evil effect upon the eyes occurred so early in life, he believed it important to discourage parents from prompting children to study much out of school. Again, the print in school-books should never be such as made them unpleasant to the eyes of any who read them.

Dr. Callan thought the system of schooling in Germany had more to do with the production of myopia than the food and habits of the people. He placed school hygiene *first*, and hereditary influence *second* as causes of near-sightedness.

Dr. Mittendorf remarked that with Dr. Derby he had examined the eyes of between two and three thousand students, and had found about the same percentage of myopia as had been reported by Dr. Loring. He did not think there was any danger of the same percentage of near-sightedness being reached in this country as existed in Germany, because of our comparatively well ventilated rooms and a better general observance of hygienic measures. He believed that it would be difficult to determine whether hypermetropia was present or not, because it was usually so slight that children were not aware that their eyes were in any way deficient.

Dr. O'Sullivan drew attention to the fact that in all of our public schools the rooms were over-crowded with pupils, and in most instances were very poorly ventilated. In some school-rooms he had also found that the seats were so placed relative to light that the pupils could only with great effort see figures made upon the black-board.

The idea that the school-rooms in the public schools of the city of New York were well ventilated and were not overcrowded, was erroneous.

Drs. Matthewson, St. John, and McIlvaine participated in the discussion. A vote of thanks was extended to Dr. Loring for his paper, and the Society adjourned.

Gotha.—The authorities of the city of Gotha, in Germany, have made a grant of 72,000 marks for the erection of buildings in one of the cemeteries of the city, in which the process of cremation can be carried out.

Obituary.

PROF. PAUL F. EVE, M.D.,

NASHVILLE, TENN.

Professor Paul Fitzsimmons Eve, the distinguished Southern surgeon, died suddenly, while in attendance upon a patient, November 3d, aged seventy-one years. He was born June 26, 1806, near Augusta, Georgia; graduated at the University of Georgia in 1826; as M.D. at the University of Pennsylvania in 1828, and was a student several years in Europe. He served as a volunteer surgeon in the Polish revolution of 1831, and received therefore the Golden Cross of Honor of Poland that year. He became Professor of Surgery in the Medical College of Georgia in 1832, in the Louisville University in 1849, in the Nashville University in 1850, and in the Missouri Medical College, St. Louis, in 1868. In 1870 he accepted the chair of Operative and Clinical Surgery in the University of Nashville, which position he held at the time of his death. As a representative man for the South he was, in 1857, chosen President of the American Medical Association. During the rebellion he served as surgeon in the Confederate Army, and for the greater part of his professional career was identified, directly or indirectly, with medical journalism in his section of country. A hard worker in his profession, his strictly methodical and temperate habits enabled him to carry his burden of duties up to the very threshold of death, and lay them down to enter at once into his eternal rest. Prof. Eve, as a surgeon, will be best remembered in connection with his remarkable successes as a lithotomist. Of ninety-two bilateral operations for stone eight only terminated fatally. His last notable contribution to medical literature was his address on Surgery at the International Medical Congress in 1876.

Dr. Eve was by faith a Presbyterian, and an ardent supporter of church interests.

He was twice married. First, in 1832, to Miss Sarah Louisa Twiggs, who died April 10, 1851. He married his second wife, Miss Sarah Ann Duncan, of South Carolina, January 13, 1852. She now lives to mourn his loss. He also leaves three sons and two daughters.

PROF. MARTYN PAINE, M.D.,

NEW YORK.

Prof. Martyn Paine, the distinguished medical savant, died November 10th, as the result of a compound fracture of the elbow-joint, aged eighty-three years. Few medical men had greater opportunities for usefulness, which were so well improved, than the subject of our sketch.

He was born July 8th or 10th, 1794, at Williamstown, Vt. He was graduated at Harvard University in 1813, and took the degree of M.D. from the Medical Department of that institution in 1816. Thence he went to Montreal, and engaged in practice till 1822, when he removed to New York, in which city he lived during the remainder of his life.

In 1841 Dr. Paine, with four others (Drs. C. A. Lee, Alfred C. Post, G. S. Bedford, and A. Sidney Doane), established the Medical College in connection with the University of the City of New York. For many years following he filled the chair of Institutes of Medicine and Materia Medica, and subsequently that of Therapeutics and Materia Medica.

The greatest service done by Martyn Paine to science and humanity was his procuring the repeal of the law which made it a penal offence to dissect a human body. He succeeded in convincing the representatives of the people, assembled in the Legislature of this State, that such a law was irrational and a perverse interference with the advance of knowledge of the healing art, and despite the tremendous opposition that was raised against him, a law was enacted by which any regularly incorporated medical college in the State of New York was entitled to its share of legitimate material for the better study of anatomy, physiology, and surgery. Dr. Paine was the author of numerous works, among which are "The Cholera Epidemic of New York," "Medical and Physiological Commentaries," three volumes, 1840–44; "Materia Medica and Therapeutics," 1842; "The Institutes of Medicine," 1847; "The Soul and Instinct Distinguished from Materialism," 1848, subsequently incorporated in the "Institutes." In 1852 Dr. Paine published, for private circulation, a memoir of his son, Robert Troup Paine. In 1856 he contributed an elaborate essay on "Theoretical Geology," to the *Protestant Episcopal Quarterly Review*, controverting the geological interpretations of the Mosaic narrations of creation and the flood.

He withdrew from the Medical Faculty of the University about twenty years ago, but was soon after elected Professor Emeritus of Materia Medica and Therapeutics, which position he held till the time of his death. About the same time that he gave up his active duties in the college he quit his medical practice and devoted himself to close study and writing. He was a member of a large number of learned foreign societies. He was always a strict dietarian, and for the last twenty years had subsisted on vegetable food exclusively. In his practice he went upon the plan of depleting rather than "building up" his patients as a preliminary to effecting a cure. His convictions were strong, and he was a powerful talker as well as a vigorous thinker and writer. Many of the old graduates of the University College will recollect how earnestly and sonorously he laid his precepts upon them.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Nov. 4 to Nov. 10, 1877.

Hammond, J. F., Lieutenant-Colonel and Surgeon. Granted leave of absence for six months, from Nov. 1, 1877. S. O. 227, A. G. O., November 6, 1877.

Forwood, W. H., Major and Surgeon. Assigned to duty as Post Surgeon at McPherson Barracks, Atlanta, Ga. S. O. 175, Department of the South, Nov. 3, 1877.

Buchanan, W. F., Captain and Assistant Surgeon. Assigned to duty at Chattanooga, Tenn. S. O. 176, Department of the South, Nov. 6, 1877.

Kinsman, J. H., Captain and Assistant Surgeon. Assigned to duty as Post Surgeon, Mt. Vernon Barracks, Ala. S. O. 163, Department of the Gulf, Nov. 4, 1877.

Spencer, W. G., First Lieutenant and Assistant Surgeon. Leave of absence extended 15 days. S. O. 262, Division of the Atlantic, Nov. 9, 1877.

Shufeldt, R. W., First Lieutenant and Assistant Surgeon. To accompany companies of Fifth Cavalry to Fort D. A. Russell, Wyo. Ter. S. O. 126, Department of the Platte, Oct. 29, 1877.

Edwards, L. A., Lieutenant-Colonel and Surgeon. Died at Washington, D. C., Nov. 8, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending November 10, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Nov. 3.....	0	28	44	1	9	64	0
Nov. 10	0	17	25	2	11	49	0

MEDICAL EDUCATION IN PARIS.—The medical aspirants going to Paris fall under two general classes: First, those who want the complete French degree of M.D.; and, second, those who want only a certain limited amount of theoretical or practical instruction in the French medical class-rooms, anatomical theatres, or hospitals. It is evident that in dealing with the wants of the first class, all those of the various subdivisions of the second class will be included.

The complete course of study embraces a period of at least four years. The class-rooms are nominally free and open to any one who sits down and behaves like a gentleman—the professors being paid by the state. No certificates of attendance will, however, be given, and no diplomas, unless certain fees be paid and examinations undergone. The sum total of all the fees payable to the Paris Faculty of Medicine for their degree amounts to 1,260 francs, or about $252, divided as follows:

Inscription fees of thirty francs each, payable at commencement of each quarter, 3d November, 3d January, 1st April, and 1st July, for four years—in all, sixteen inscriptions	$96
Examination fees at the end of the first, second, and third years, thirty francs each year, and three in all..	18
Final examination fees at end of fourth year, certificates and diploma of M.D. included.....	138
Total.....	$252

Every student, in presenting himself to take his first *inscription*, will have to depose (1st) a certificate to prove that he is at least sixteen years of age; (2d), if a minor, the consent of his parents or guardian; (3d), a certificate of good life and morals; (4th), the diploma of Bachelor of Letters and Science, or, if a foreign student, its equivalent. In the case of an American, this equivalent would be the B.A. of any good home university, or a series of certificates from some competent authority amounting to that. It must be understood, however, that the French Faculty (or rather the Minister of Public Instruction, who is the final judge) is always ready to grant every reasonable favor to strangers, who show, by the trouble and expense they put themselves to in coming from the United States, that they are seriously bent on the acquirement of knowledge. As to students who have already acquired more or less proficiency in medicine in a university, academy, or faculty outside of France, they have the right to demand a corresponding status and a "concession of inscriptions" in Paris. The documents on which this demand may be founded should be forwarded to the Rector of the Faculty, who will submit them to the proper authorities and indicate the result. In this way a foreign student may shorten his four years by one or two or three years, as the case may be. In case the applicant should already hold an American or English M.D., it is usual to concede to him *all* the inscriptions, and excuse him from passing the examinations of the first three years; he will only have to undergo the final examinations. In all cases of "concessions," however, whether partial or complete, the full fees of 1,260 francs have to be paid, as if the classes had been followed year by year. Lastly, foreign doctors may practise their profession in France, without taking the French degree or passing any examination, by a special authorization of the Minister of Public Instruction. To gain this, the fees will have to be paid as above, and the following documents deposited in the hands of the Rector of the Academy of the place in which they desire to practise: (1st), a recommendation from the Minister representing their nation in Paris; (2d), an indication of any special scientific or literary labors which they have accomplished, or on which they are engaged; (3d), their diplomas, accompanied, if necessary, by a certified translation of the same.

The young student, having paid his inscription fee of thirty francs in advance, is presented with a card (good for three months), which opens to him the library and all the museums and class-rooms necessary. He is also furnished with a paper of directions. The hours and places of the various lectures, hospital and other, are posted up in the hall of the School of Medicine (Rue de l'Ecole de Médecine), and in most of the public libraries, etc., or the printed list can be obtained for a few cents by writing to "M. Craville-Morant, 20 Rue de Sorbonne," for the *Indicateur des Cours Publics*.

Students have the choice of a large number of professors; provided they pass their examinations and pay their fees, they may even get their instruction from what are called the "Free Professors"—that is to say, from those outside the faculty who compete with its members and take what may be called private pupils. Naturally these demand an extra fee. To take one of the best examples, the five months' course of anatomy given by Dr. Fort costs, subjects and lectures included, 300 francs. This style of instruction is specially suitable to foreign students who do not care to follow all the regular classes.

A MILD CLIMATE AND MINERAL SPRINGS.—Dr. D. B. Messenger writes: "*Dear Sir*—After five years' observation, I am convinced that the mild climate, pure dry air, and fine mineral springs of West Texas afford to those needing a change of climate advantages equal, if not far superior, to those found in the more eastern Gulf States with their humid atmosphere; and since the railway was completed to the city of San Antonio, many who wished to winter in a mild climate have been benefited by a sojourn in this salubrious region of country. The most noted medicinal waters are to be found at Lampasas, Luling, and Sutherland Springs; white, black, and blue sulphur, chalybeate, magnesian, iron and alum, and other waters, are found at Sutherland Springs; the large bathing springs of white and black sulphur water have a temperature of 78° Fahr.; the chalybeate, 72° Fahr. Here one can select a tonic or a diuretic, an aperient, astringent, or an alterative spring water, as the case may need. These springs are thirty miles from San Antonio, on the Rio Cibolo, in the centre of a belt of oak opening 15 miles wide. Deer, turkey, geese, ducks, quail, and other game reward the sportsman while the river affords the finny tribe in abundance."

Original Communications.

REMARKS UPON

THE MECHANISM AND TREATMENT OF PULMONARY COMPLICATIONS OF ACUTE CARDIAC DISEASE.*

By BEVERLEY ROBINSON, M.D.,

PHYSICIAN TO CHARITY HOSPITAL, ETC.

Scarcely a work has appeared on diseases of the heart which does not treat at length of pulmonary lesions that so frequently complicate their chronic affections. Nor is this a surprising fact, when we consider the intimate relations, anatomical and physiological, which exist between the heart and the lungs, and are made aware how nearly connected must therefore be their divers changes of tissue. Thus it has become an established law, that if an organic disease exist for any length of time in either the cardiac or pulmonary structure, the sequel of the primitive disturbance is manifested by signs of trouble evolved in the neighboring organ previously healthy. It is regretable, however, in those old maladies which have left indelible traces of their presence, that we are frequently at a loss to determine which is the viscus which originated the march of morbid events. At times, no doubt, it is the heart, which, becoming affected by the dyscrasic influence of rheumatism, pyæmia, or typhic forms of disease, has paved the way to congestion of lung tissue, to hypostatic pneumonia, to cheesy softening, or tuberculous development. Again, it is a probable belief that the lungs have been attacked with a form of some usual disease of inflammatory type; but instead of returning in the convalescent stage to their original integrity, have remained in a condition in which their function is evidently trammelled, and normal heart-action rendered impossible. But in numerous instances, after a long lapse of time, to be able *to affirm positively* in which system the pathological changes have first developed themselves, is most difficult. Fortunately, such obscurity is far less likely to attach itself to the invasion of acute disorders. Consequently, their début and ulterior march can be accurately and fully learned. And from this knowledge the practical services which must finally result are readily appreciable. We are thus enabled to form correct opinions with respect to the relations of these diseases to each other, and by watching closely the mechanism according to which certain ascertained consequences are affected, more rational and trustworthy therapeutical measures will sooner or later be universally employed. Some such reflections as the foregoing have made me desirous of correlating in the space of a short article a few facts which, though known to the profession, are not united in an easily assimilable form in regard to the pulmonary complications of acute disorders of the heart. Just so soon as circulation through the heart is at all embarrassed by acute organic disease of its structure, hæmatosis is immediately interfered with, and other troubles of the respiration, functional or organic in their nature, sooner or later occur. These pulmonary complications frequently become of primary importance, and, in fact, lend to the cardiac affection its imminent gravity. Besides, when once they are developed, unless speedily and thoroughly cured, they tend constantly to aggravate the heart-lesion and to lessen the time during which the patient may hope to live in comparative comfort. By attention and care in regard to their period of attack, their further development may sometimes be checked, or indeed completely aborted. If allowed to run their course unrestrained, they lead in many instances to a rapid and fatal termination, and in themselves are frequently to be considered the proximate and efficient factor in causing it.

As we shall note further on, these accidents differ materially in their nature and gravity. Sometimes they are purely functional, again they are organic. In the first case they are painful and distressing, but not as a rule dangerous. In the second case, they are undoubtedly dangerous, and are therefore to be met immediately with the use of active opposing agents. But the amount of danger will depend to a great extent upon whether or not the pulmonary complication be inflammatory, or merely congestive in type; whether or not the last-mentioned condition be permitted to transform itself into the more severe form of disease. Let us now study in particular those lung complications which follow closely upon pathological processes acutely developed in the endocardium, the pericardium, and the muscular heart structure itself. Take for example, and as a first thought, the invasion and ordinary march of endocarditis. What do we see? Dominated by rheumatic dyscrasia in manifold instances, we have a localized inflammatory processus attacking the endocardial membrane. The heart's action is accelerated and increased in force. The number of pulsations and respirations are both more rapid. The patient is usually a sufferer from moderate dyspnœa, and will at times indicate the precordial region as the seat of sensations of oppression, if not of absolute pain. Upon auscultation we are able to discover a cardiac murmur more or less loud, and of varying tone, especially distinct over the orifice most affected. The physical condition of this orifice, in those somewhat rare cases where it has been examined shortly after the period of invasion, is as follows: the *pourtour* of the valve at its adherent margin is thickened and red, velvety and roughened in aspect, and may present small deposits of fibrine upon its surface. But beyond the outward appearance, there is also the dynamic or vital influence which should be estimated. The valve itself contracts badly, passes with difficulty from the state of dilatation to the state of tension, and is at times, as it were, "convulsed." In this way, doubtless, the stage of endocarditis, in which even the normal heart-sounds are deadened and which precedes that of abnormal bruits, may be explained.*

At a later period of the physical condition described we have added to it a certain amount of rigidity and narrowness of the orifice. Against this fresh obstruction the heart reacts with greater energy, and according to Savart's law we must have a bruit of which the intensity is in direct proportion with the rapidity of the blood-flow. So long as the vital trouble on the one hand, the mechanical obstruction in the heart on the other, do not *notably* interfere with the circulation, respiration is but slightly affected and dyspnœa is moderate, or entirely absent. If, on the contrary, the one or other be specially accentuated, the result is immediate and more considerable trammelling of the respiratory function takes place. After this manner

* Read before the New York Academy of Medicine, September 20, 1877.

* Monneret, Pathologie Interne, vol. i., p. 225.

we can explain the apparent discrepancies which classical authors afford.

If dyspnœa is evident, there will usually be present a concomitant condition of passive hyperæmia of the bronchial mucous membrane, for endocarditis in the adult almost always affects the left side of the heart, and must of necessity produce an excess of tension in the pulmonary circulation, so soon as acute obstruction or insufficiency is produced at either valvular orifice. More certainly, however, would this result if the pathological lesions affect the mitral valve. Such congestion is usually recognized during life by dulness on percussion and disseminated bronchial râles. But these physical signs are occasionally absent, and the dyspnœa seems to be related to an influence of nervous origin.* Not infrequently, also, a most distressing form of obstructed breathing is due to coagula, formed in the right side of the heart.

The patient's breast heaves in an exaggerated manner, the respiration is noisy and laborious, and the general aspect of the body is pale, while the cheeks and extremities are cyanosed. There is, indeed, evidence of a violent, agonizing struggle for air against rapid asphyxia. If the lungs be percussed at this stage, we are surprised to produce an elevated tone, such as one observes in excessive vesicular emphysema. There are no râles present, and no other signs of pulmonary congestion. What is the explanation of this condition? On the one hand, the heart has been making its best effort to send a sufficient amount of blood to the lungs, but without adequate result. Little by little the supply diminishes. The deposit of fibrine within the ventricles of the heart augments, the lungs become nearly bloodless, and the cardiac contractions exhausted. On the other hand, we have a constant influx of atmospheric air into the lungs with each inspiratory effort, and the pulmonary vesicles are distended to their extremest limit. Of course hæmatosis cannot be continued in a sufficient measure, and excessive dyspnœa is the immediate necessary result. This painful condition was first insisted upon by Lavirotte † many years ago. It has since been reaffirmed by myself.‡ If, instead of affecting the right ventricle, these fibrinous coagula be formed in the left heart, we have also a distinct order of phenomena produced, viz.: the pulmonary circulation is rendered much tenser from backward pressure, and pulmonary congestion and œdema are the rule. Blood is found in excessive quantity in the pulmonary structure, while the contrary holds true of air. Hæmatosis is likewise much obstructed, and dyspnœa is intense, but the mechanism of their production is different from that of the first-named condition. In that form of endocarditis known as "diphtheritic" or "ulcerative," capillary emboli or their consequences are usually found. The consequences are hemorrhagic infarcti and purulent formations in different viscera.

Singular to say, these effects are not so frequent in the lungs as in other organs. In illustration of this fact I would refer to a case lately presented by me to the New York Pathological Society,§ where infarcti were formed in the kidneys, spleen, intestine, etc., but none in the lungs. As an explanation, it has been said that ulcerative endocarditis, like the ordinary form of this disease, affects as a rule the left side of the heart, and the pulmonary circulation is therefore out of the sphere of such accidents. This is not wholly correct, for though the first half of the statement is true in the case of adults, we know that branches of the bronchial artery *may* become plugged, and occasion local death of tissue. Rather than admit the fact, whenever pulmonary infarcti were discovered with a morbid condition present of the left heart, and though they were clearly due to capillary embolisms, affirmation was made that the lesions of the lung were of more recent date than those of other viscera, and were therefore secondary to, or consequent upon, similar lesions formed elsewhere. While in some instances this is a fair statement, it is not so in all; for several examples have already been published where microscopical examination could justify no such explanation (Duguet and Hayem). Moreover, while ulcerative disease of the tricuspid valve is exceptional, it is met with in this particular form of endocarditis, and capillary emboli of branches of the pulmonary artery are known to have this origin.

In children, according to Blache,* endocarditis of the right side of the heart is observed as often, if not more frequently, than it is of the left side. But inasmuch as the ulcerative form is rare with children, pulmonary infarcti and abscesses due to this cause are very rarely met with. Dyspnœa, however, combined with congestion of the bronchial mucous membrane, is even more apt to complicate endocarditis in childhood than in maturity. It is but prudent, therefore, in all functional or organic disorders of the lungs, and especially those which come on rapidly, whether it apparently be as idiopathic or as secondary affections, to examine the heart daily, and to note whether or not the endocardium be inflamed. If discovered to be so, an explanation is at once afforded of oppression too considerable to be wholly accounted for by the existing lung disturbance. In rare instances, after Sibson, † pulmonary apoplexy or extravasation is the result of difficulty of the blood-flow through the lungs, and sanguinolent sputa are expectorated. This condition, of course, indicates absolutely intense capillary congestion of the mucous membrane lining the bronchial tubes, and is dependent usually upon the enfeebled state of the cardiac contractions, and a debilitated nerve-force. To increased blood-pressure in small vessels must also be added, in certain cases, the degeneration which their walls have undergone and which increases the tendency to rupture.‡ Passive congestion due to endocarditis may not, however, either end in the extravasation of pure blood from over-tense vessels, or remain limited to this condition. It may progress and terminate in solidification of lung tissue. And this is made evident, partly by the local signs of condensation, partly by sudden increased dyspnœa and rusty expectoration. It has been doubted by some whether pneumonia should be considered a complication of endocarditis in any event. This I cannot understand, for it appears to me quite as rational that pneumonia should follow endocarditis, as that pneumonia should be followed by it. Of course I would eliminate from consideration those instances in which pneumonia existed prior to the evident début of endocarditis. There still remain cases in large number where pneumonia has been revealed at the same time with signs of endocarditis, and others, also, where pneumonia followed closely in the wake of this disease. In the first division it may be legitimate to infer that the two localized inflammatory conditions were due to one similar cause. This cause may be the influence of cold, of rheumatism, of the puerperal state, of typhic conditions, of pyæmic poisoning. And it

* Martineau, Thèse sur les Endocardites.
† Congrès medico-chirurgical, Lyon, 1864.
‡ Thrombose cardiaque dans la diphthérie. Paris, 1872.
§ At a stated meeting, held March 14, 1877.

* Essai sur les maladies du cœur chez les enfants. Paris, 1869.
† Reynolds—A System of Medicine, vol. iv., p. 472.
‡ British and Foreign Medico-Chirurg. Review., April, 1877, p. 260.

would be difficult sometimes to separate the action of these general causes from a local one, and to show reasons for belief that pneumonia was due to endocarditis and not to what evidently produced the inflammatory condition of the heart. Again, there are numerous examples where pneumonia was developed subsequently to endocarditis. This is often seen in acute rheumatism, and, according to Fuller,* we should even then understand it to be occasioned by the general diathetic condition, and not brought on by endocarditis. From what I have been able to observe, I cannot subscribe to this view. For I have difficulty in explaining how it is that the lung trouble delays its invasion till the rheumatic attack has considerably diminished in intensity and acuteness; how it is that endocarditis, which is quite sufficient, when no rheumatic dyscrasia exists, to cause dyspnœa, congestion, apoplexy, or inflammation of the pulmonary structure, should not continue to exert a similar influence though rheumatism be present, and when the march of morbid symptoms points so manifestly to this interpretation. It has been noted, it is true, by more than one writer, that pneumonia is more apt to follow endocarditis developed in adynamic conditions, or those in which systemic blood-poisoning was undoubted, and under these circumstances the pneumonic processus was not frank in its symptoms or morbid aspect. The chill which marks its invasion ordinarily was absent, as also the characteristic sputa. And upon section of lung tissue after death, it was found to be of more diffluent consistence and of less granulated appearance than in a typical inflammatory processus of acute type. These facts have their weight, I freely concede, but should not make us unmindful of the preceding local condition of the endocardium, which can scarcely fail to help greatly the pathological development in the lungs. Besides, we should not lose sight of the fact that it is precisely in these conditions of the system marked so fully by symptoms of profound and rapid depression that ulcerative endocarditis usually appears.

II. In the commencement of an attack of pericarditis there is probably no rational symptom which has more importance in making one's diagnosis than the existence of dyspnœa in a notable degree. Of course, like other symptoms which are not essential in character, its value will vary—first, with attendant circumstances; second, with the intensity of the symptom itself. If, for example, during a rheumatic attack, difficulty of breathing should manifest itself and upon auscultation of the lungs we find signs either of bronchitis, pleurisy, or pneumouia, we are satisfied as to the cause of troubled breathing, and may not look further, or if we do, and listen to the heart-sounds, their characters are not removed enough from the normal to make us suspect disease of this organ. But let us suppose during a similar attack auscultation of the lungs remains negative, or the pulmonary lesion is slight and the oppression intense, then we listen to the heart-sounds more carefully and repeatedly, and soon physical signs will reveal to us the existence of pericardial inflammation. And if this be true in the case of adults, it is even more correct with children, inasmuch as acute dyspnœa in them, when no pulmonary lesion prevails, is nearly pathognomonic of pericarditis. Formerly great emphasis was placed upon the characters of dyspnœa. Rarely, if ever, it was affirmed, would a patient suffering from simple pericarditis find himself compelled to assume a special posture. He could move his body in any way he chose, from a dorsal decubitus to a lateral one, from a recumbent position to an erect one, and yet in these different changes his breathing remained the same, was not notably accelerated or oppressed in any one of them. On the other hand, if orthopnœa took place rapidly, or slowly; if the patient were reawakened in the early part of the night after a few hours' sleep, feeling as if he were stifling from lack of air, with palpitations and precordial anxiety, these symptoms were pathognomonic rather of an inflamed pleura than of an inflamed pericardium. In our day we no longer attribute so much importance to the mere rational signs of disease; we are more apt to pin our faith to physical signs, and perhaps after this manner to lose sight at times of the knowledge which ancient observation has handed down to us. What, we may ask, are the causes of dyspnœa in pericarditis, and why does it vary in intensity with different patients? In replying to this question we should consider, 1st, the morbid conditions of the pericardium; 2d, the complications which accompany these conditions. Whenever the pericardium is acutely inflamed, it may remain in a state where plastic exudation of a more or less extensive area is the only lesion that morbid anatomy shows, or liquid of serous or purulent nature in small or large quantity may become effused into its cavity. In the first category we find a certain number of instances, and these are not marked by dyspnœa unless the exudative material be so considerable in extent as to bind the heart muscle, and thus, by giving rise to heart-clot,* form an obstacle to its normal and healthy contractility. Such examples are met with in chronic forms, but scarcely ever in acute stages of this disease. Now, if effusion be established, it may be in small amount, and even this quantity may form by degrees. Then the heart continues to act very much as before it took place, and the respiration is not appreciably affected—but let the effusion become large, and what results? In the first place, breathing becomes difficult when the patient is in the dorsal decubitis, for in this position the pericardial effusion gravitates towards the base of its enclosing sac, and there exercises a compression upon the large vessels which trammels the blood-flow. The patient, in order to get relief, will lie on the left side, and in instances of excessive effusion will be forced to assume a sitting posture. By the first change of position the right lung is allowed to inspire air more freely; if the second be taken the greater quantity of fluid falls towards the anterior chest walls, and thus both the lungs and great vessels at the base of the heart are liberated in great measure from pressure. Owing to the relative position of the heart within the thoracic cavity, the left lung is always more compressed than the right, and it is to this compression that is in great part due the oppression from which the patient suffers. But this is not all, for at times the left pneumogastric trunk is stretched, and from irritation thus produced we may have spasmodic contraction of the bronchial tubes and increased anxiety. The dyspnœa may depend not upon the pericarditis properly speaking, but upon a complication arising within the heart or elsewhere. In the former case, endocarditis or myocarditis is ordinarily developed; in the latter, neighboring organs are implicated by the extension of the inflammatory processus. The diaphragm may become inflamed and paralysis of this muscle be effected. The result of this condition is to augment oppression, to render chest movements shorter and more rapid, and the reflex actions of cough and expectoration very difficult.

* On Rheumatism, Rheumatic Gout, and Sciatica, 1854.

* Lucquoy, Des concrétions sanguines, 1863.

Under these circumstances we can appreciate how even a slight pulmonary disorder may involve a grave prognosis. By reason of contiguity and resemblance of structure pleuritis frequently follows pericarditis. And so true is it, that recommendable authors affirm whenever pain and dyspnœa are present they are invariably due to pleuritic complication. This statement is obviously incorrect, since spontaneous cases of pericarditis, in which no concomitant lesion exists, are accompanied by these symptoms. But that they are both augmented, and particularly the difficulty of breathing, by intercurrent pleuritis, cannot be questioned.

Pneumonia may be due to propagation of the inflammatory condition from the pericardial sac, and it may also be present together with pleuritis, produced after a like manner. Frequently, however, pneumonia is occasioned by the dyscrasic influence which has likewise been efficient in causing pericarditis, or else is the variety attributable to capillary embolisms originating in an inflamed endocardium, but only manifesting itself after some days' duration of disease. No doubt, when a large effusion exists in the pericardium, and the left lung is compressed, there is predisposition to congestion and inflammation of its structure. Of course in pericarditis this tendency is still further increased by compression of the heart muscle and embarrassment of its functional activity.

III. The symptoms of myocarditis are ordinarily obscure, and we are unable during life to make an exact diagnosis. In those instances, however, where we are likely to encounter this complication, and where without premonition the heart-sounds and pulse rapidly become feeble and irregular, and the respiration greatly obstructed, with frequent, paroxysmal cough, some frothy sputa, lividity and coldness of the extremities, and upon auscultation of the lungs stethoscopic signs of engorgement or œdema are discovered, we are right to conclude that myocarditis has become developed. Of all these symptoms there is none more marked or important to consider properly than the sudden dyspnœa. Difficult, oppressed breathing is in these cases significative in a high degree of impaired heart-power, and no doubt more so in reality than of what is usually accepted by the term "inflammatory condition." It is pronounced and distinctive, and yet if the lungs be carefully auscultated during the first few days of disease, we cannot detect pulmonary lesions which are sufficient to account for the distressing anxiety shown by the aspect of our patient. During a more advanced stage, mechanical obstruction and its rational phenomena are accompanied by moist râles disseminated throughout the chest. Rarely, signs of pleuritic effusion, or those of incipient pneumonia, are discovered. According to my own belief these various symptoms and conditions are under the dependence of irregular and weakened cardiac action occasioned by atrophic or fatty degeneration, which leads directly to venous stasis in the pulmonary circulation.

Perhaps pressure upon interstitial nerve filaments should explain painful symptoms of persistent, though spasmodic type, felt at one time in the præcordia, at another in the lungs.

From what precedes, can we deduce some valuable notions of treatment? Doubtless when fever is intense in pulmonary complications dependent upon acute cardiac disease, it is proper to make use of local antiphlogistic or counter-irritant treatment.

Anodyne poultices, compresses wet with cold water, iodine, blisters, etc., applied over the chest in different regions according to the evident indications of each case, are useful adjuncts, and diminution of inflammation, stimulation of heart-power, and absorption of exudations, may thus in a measure be effected. And yet it is admitted by almost every practitioner of medicine that general remedies are those which should inspire us with most confidence. Amongst them we have usually looked to the antipyretic class as the one where we should find suitable drugs to combat successfully the symptoms which are here noteworthy. Those most employed are quinine, aconite, opium and its alkaloids, veratrine, belladonna, aided by soda and other alkaline salts, if a rheumatic diathesis is found to be present. Quinine especially is our mainstay. Quinine, it is said, is most useful in diminishing fever; it lessens rapidity of the pulse, it decreases arterial tension, it destroys cell proliferation, it is antiseptic and highly tonic in its action. How far is this accepted belief correct, and to what extent shall we trust quinine in conditions similar to those decribed?

First.—Quinine, like the majority if not all drugs, acts very differently according to the dose which is administered. If given in small doses, one to two or three grains, it is a tonic, but only a poor or very moderate one even then, for in its tonic action it is far surpassed by bark itself, by its tincture and fluid extract, and by other remedies, such as iron, strychnia, phosphorus, and arsenic. Quinine, let it be well understood, is not the essence of Peruvian bark, but one of many elements contained in it, and while the latter substance since its first use has been invariably credited with corroborating effects, the physiological action of the pure alkaloid has been much watched and debated by experimenters, and the observations published are by no means in accord. From the different results published has arisen various practice. The Germans give quinine in moderate doses as an excellent tonic, in very large ones as a most effective antipyretic remedy.

This view has been accepted, generally and entirely, by English and American, but not by French, practitioners of medicine. For while the French consider quinine when given in large doses to be very useful in reducing temperature, they do not regard it as being a tonic agent of great value in small ones.

Second.—The question of the antiseptic power of quinine has been discussed by me already at length, in a paper written in the *American Journal of Obstetrics*, June, 1876, on the so-called antiseptic treatment of diphtheria. I there endeavored to show that even though we frankly admit the power which quinine with certain other well-known drugs (carbolic, salicylic acid, etc.), evidently possesses, in a certain measure, to lessen the vitality of lower organisms when brought into contact with them, under the form of powder, or of concentrated solution, there is no fair reasoning which will permit us to assume that quinine, given internally in moderate doses, as it usually is, will affect in the smallest degree the poisonous entities of infectious disease.

Third.—The power quinine has to destroy cell proliferation, more particularly in pneumonia and in phthisis, has been strongly defended by a very able professor in our midst, and I naturally feel some hesitancy in combating this doctrine. Nor do I directly. I would merely proffer another explanation, *i. e.*, that in pneumonia and phthisis cell proliferation is not, as it were, one of the immediate and necessary consequences of inflammatory conditions of lung tissue considered as such, but rather of stagnation of blood in the capillary circulation, no matter *where* or *how* brought about. Now in all cases where inflammatory phenomena are pronounced, and especially where temperature ranges very high, and lowering of bodily heat

even temporarily is a primary indication, the use of quinine in fairly large doses is commendable. 1. Because combustion is then very exaggerated and of course waste material accumulates everywhere, and perhaps nowhere more abundantly than upon the pulmonary mucous lining when it has become the seat of morbid action. 2. If temperature be lowered, oxygenation of blood and tissue is less active, and cell proliferation consequently less abundant.

In those instances, therefore, where pneumonia is a very active inflammatory disease, no doubt Prof. Loomis is correct in his belief with respect to quinine and its action. But in those cases where pneumonia or bronchitis is a secondary disease, where the cause of its production seems to be far less, if at all—the original inflammatory action beginning in its structure—than the mechanical obstruction which proceeds from or is occasioned by a neighboring organ, I do not see a sufficient object to be attained by giving quinine while the temperature of the body in the primary disease is only moderate in degree, and shows but slight increase when the pulmonary complication arises. During last winter I had two cases under my care at Charity Hospital which corroborated this view; one of capillary bronchitis in a man about 50 years of age, the other of pneumonia in a man 40 years of age. In both instances, the patients, when seen by me, were under treatment with large doses of quinine, though the elevation of temperature had been and was moderate. Their hearts had, however, diminished in strength, and were beating irregularly at the rate of 100 to 110 a minute. Respiration was anxious and laborious. The general symptoms were alarming and my prognosis was serious. I changed the treatment to one of large doses of digitalis, and within twenty-four hours had the satisfaction of noting a great amelioration of physical condition in either instance. This fortunate change I attributed directly to increased heart stimulation.

Fourth.—It is said quinine diminishes febrile phenomena in lowering temperature and reducing arterial tension and the number of pulsations. Of the truth of this affirmation there can be no doubt. But how does it accomplish this result? Is it not in great part through its weakening action upon the heart? I do not propose to discuss this question from a physiological standpoint—although even then the fact could be readily substantiated by the experiments of Giacomini, Briquet, Binz, Cherone, and others still—but from a clinical one, where I am equally convinced of the exactness of my proposition.

Somewhat more than one year ago, I attended a girl 20 years of age, who was dying rapidly of catarrhal phthisis. Her temperature rose to 103° or 104°. There was sufficient reason to give quinine, which I did in doses of 5 grains, ter in die, speedily augmented to 10 and 15 grains morning and evening. Temperature fell, but with this fall the strength suddenly failed, so as to occasion attacks of syncope. Quinine was then interrupted, temperature again became elevated, but strength returned in a measure, and the fainting attacks were at once arrested. I have also apparently noticed this same action, though in a less degree, in one case of pure functional trouble of the heart, and in one of diphtheria affecting a child.

In almost all cases of simple endocarditis and pericarditis, and in many of those where we are right in assuming secondary myocarditis to be present, general treatment with digitalis is the only proper and efficient one to institute from the very beginning of the disease. It increases notably the force of cardiac contractions, and augments arterial tension all over the body; it lowers pulse, respiration, and temperature, little by little, and without affecting the general tone or strength of the patient in an unfavorable manner. In the treatment of cases similar to those we have considered in this paper, I believe it will be found to be altogether the safest and most trustworthy drug we possess. Its diuretic action, too, can but be most useful by ridding the body of its superabundance of waste material. If the inflammatory condition of the heart be seen from its commencement, I would counsel to be taken from 5 to 15 drops of the tincture, or 3 i. to 3 iij. of the infusion, three or four times in twenty-four hours. At first it may be given alone. After a few days, in the event of any great degree of prostration manifesting itself, let it be combined with Huxham's tincture of bark, or small doses of strychnia, or with both. If, on the other hand, the patient be seen only when there are already evidences of an obstruction of the pulmonary circulation intense in its character, and whether it become apparent as simple congestion, generalized bronchitis, œdema, or any one of these associated with pneumonia, pleurisy, or suffocative catarrh, do not hesitate to administer teaspoonful doses of the tincture of digitalis at intervals of four hours, until anxiety, precordial oppression, and very pronounced dyspnœa have partially, or to a great extent, disappeared. If temperature be elevated it will fall soon enough under these repeated large doses, and if it be but moderate—100°, 101°, 102°, Fahrenheit scale—this symptom is not the important one, nor should we have any solicitude concerning it. Rise of temperature, even when exaggerated in acute disease, is not in reality the sole and all-important factor in determining our therapeutic measures. For are we not constantly reminded of this by cases of scarlatina and typhoid fever daily recorded in medical journals, which show no grave symptoms, and yet during their march have had a more or less constant and high range of temperatures? In others, temperature has remained low, and yet many symptoms of aggravated type and seemingly proof of profound constitutional poisoning have developed themselves with fearful celerity. Again, are there not many cases where temperature has remained low during acute stages of disease, and yet ultimate convalescence has been very tedious and marred by many intercurrent accidents of serious import? Once more, then, high temperatures should only cause anxiety when combined with symptoms which also occasion just alarm.

When the other symptoms of acute disease remain of mild type, I, for my part, do not fear those destructive tissue changes which have been the *bête noire* of a host of medical practitioners during the past ten years. Moreover, in considering the appropriate treatment of pulmonary complications of acute cardiac troubles, we should not ignore the results of experiments performed upon animals. Notably amongst practical physiologists, E. Cyon,* in his work "On the Influence of Changes of Temperature on the Number, Duration, and Strength of the Beats of the Heart," has shown that although during a gradual rise of temperatures cardiac contractions are rendered somewhat more frequent and stronger, yet that at a certain degree of heat elevation their number decreased suddenly and they became rapidly weaker and more irregular, until finally they ceased altogether. Nor was the degree of elevation always invariable nor great in itself. At times, and in some animals, and under similar circumstances, the arrest of the heart-beats took

* Berichte über die Verhandlungen der K. Sachs Gesellschaft den Wissenschaften, 1866, XVII., 258 ff.

place when the temperature was only slightly elevated, and again a very considerable degree of heat was obtained before any appreciable morbid effects were witnessed upon this organ. It is thus made evident, even in instances where there are few modifying circumstances to be considered, other than the individual peculiarities of different animals of the same species, that high temperatures do not always produce morbid effects alike either in character or degree. When, therefore, as is the case in nearly all pathological conditions of the human body, there are many undetermined factors to be weighed and balanced before an accurate conclusion can be arrived at with respect to the effects of temperature, it behooves us, indeed, to be prudent in our actions. In one person and in a given disease, the dangers resulting from heart paralysis may be comparatively slight; and although body temperature is much elevated above the normal, in another, *ceteris paribus*, these risks become great and imminent. In pulmonary complications of acute heart disease, it therefore appears to me rational to combat the rise of temperature when it has become elevated to the point of *possible* danger, especially to the heart, and likewise to the other viscera. But our aim should be to act moderately and with just appreciation of the conditions involved. Temperature may and should be lowered, but only exceptionally by means of agents which will also tend to lower greatly cardiac energy.

If such agents be employed, their use should be restricted within very narrow limits, and never extended beyond the point where their physiological employment terminates. And while making use of any antipyretic remedy, even the safest and most wisely selected one, we should recognize that the sources and mechanism of fever are not yet accurately determined, and there are still many elements pertaining to its origin and development which would greatly influence our therapeutic opinions and action were they more fully known to us.

Rapidity of pulse and respiration are not always the consequences of high temperature, but are occasioned by some other obscure or latent cause, which is possibly the very essential primary factor of rapid febrile tissue changes, and which abnormally affects, at nearly the same time, pulse, respiration, and temperature. All three of these symptoms are then closely correlated, but not of necessity interdependent; and it is very important to render this fact present and clear to the minds of our medical brethren.

In conclusion, I believe the following propositions are fairly established by the reasoning and facts contained in this paper:

1. Pulmonary disorders are frequently the immediate and almost necessary consequence of disordered heart-action of acute type. 2. These pulmonary complications should not be considered as being frequently of inflammatory nature, but rather as being manifestly produced by mechanical obstruction. 3. In our effort to combat effectually these secondary affections, which are often rapidly dangerous, we should make use of a remedy which will strengthen and regularize heart-action, while lowering gradually and safely pulse, respiration, and temperature. 4. Quinine in small or large doses does not produce these results, and should therefore give place to a remedy which does, viz., digitalis. 5. Moderately high temperatures are not necessarily very pernicious or of great moment, in so far as the indications of treatment are concerned. 6. Our therapeutic treatment of pulmonary complications consequent upon acute cardiac disease (endocarditis, pericarditis, myocarditis) must be guided rather by the general symptoms of disease in our patient, than by one single morbid phenomenon, viz.: elevation of body temperature.

A CASE OF GLOSSO-LABIO-LARYNGEAL PARALYSIS.

By ANDREW H. SMITH, M.D.,

OF NEW YORK.

While on a visit in the interior of the State, last August, I saw in consultation a case of glosso-labio-laryngeal paralysis, which, as the disease is rare, may be worth placing on record.

The subject of it was a clergyman, aged sixty-one years. About fifteen years ago, after prolonged and severe exercise of the voice in preaching, he became hoarse, and ultimately his voice failed so that he could speak only in a whisper.

After the lapse of a year he gradually regained the use of the larynx, but as he did so he became sensible of an imperfection in his enunciation of certain syllables, especially those containing the letters p, t, d, s, etc. This difficulty has increased until now the power of uttering the labial and lingual sounds is almost entirely lost.

Later a difficulty in swallowing was gradually developed, which has reached such a degree that only *warm fluids* can be taken, and these with great care and hesitation, as they are apt to cause strangling, and to return through the nose. Mucus accumulates in the fauces, which he has great difficulty in getting rid of, and which causes a sense of strangulation.

He finds that the movements of the tongue are very much restricted, and he has not the full control of his lips.

His sight, taste, and smell are as perfect as is usual in persons of his age. The sense of touch, even in the paralyzed parts, is not impaired.

He feels much less distress when the weather is warm, and dreads the approach of each winter.

Such is the account which the patient—a very intelligent man—gave of himself. As to the objective appearances, the patient moved slowly and feebly, but this was evidently the result of mere debility. The next notable thing at a cursory glance was the expression of his mouth. The orbicularis muscle was entirely paralyzed, permitting the lower lip to fall away from the upper, and to become partly everted. There was also relaxation and eversion of the upper lip from the same cause. The levatores menti and the depressores ang. oris were not involved in the paralysis, and by their aid the patient was able to bring the lips into contact; but when so approximated they projected forward, leaving a space between them and the teeth, and giving a very peculiar expression to the face.

When the mouth was opened the movements of the tongue were observed to be very slow and very much restricted. The tip could not be turned upward to touch the roof of the mouth, nor backward beyond the bicuspid teeth. The tongue was not notably changed in shape or size.

All the muscles of the soft palate, including the palato-pharyngi and palato-glossi, were paralyzed so that when the head was thrown backward the relaxed velum fell of its own weight against the posterior wall of the pharynx. The finger carried into the fauces produced scarcely any local reflex action, showing that the constrictors were complicated; but sensation was perfect, and the reflex action of the stomach seemed unimpaired, efforts at vomiting being readily excited.

There was a very profuse secretion of mucus from the larynx and pharynx, which was gotten rid of with the utmost difficulty. There being perfect inability to contract the cavity of the pharynx, the air which was forced from the larynx in the act of hawking escaped into a great loose bag, instead of into a narrow, firm passage, and thus it failed to drive the mucus before it. The paralysis of the soft palate added to the difficulty, for when by great labor a portion of mucus was coughed up into the back part of the mouth, the non-closure of the isthmus faucium permitted it to fall back again upon the larynx.

Examination with the mirror showed that the laryngeal muscles retained their activity, and the cords, with the exception of slight hyperæmia, were normal. The respiratory muscles were as yet unimpaired.

In this case it is not probable that the loss of voice, which occurred in the early stage of the disease, was owing to a central lesion, since, after a year had passed, the larynx gradually regained its power. Moreover, laryngeal paralysis of bulbar origin does not usually occur in this association until after the paralysis of the lips, tongue, and soft palate has become well-marked. It is more than probable that the aphonia was the result of a catarrhal affection, and that if life continues long enough there will be a return, but this time from advancing changes in the medulla.

The greater ease in swallowing *warm* fluids is characteristic of dysphagia from almost any cause. Thus it is observed in both organic and spasmodic stricture of the œsophagus, and also when dysphagia results from the pressure of a tumor.

Clinical Lecture.

FISSURE OF THE RECTUM.

CLINICAL REMARKS MADE AT BELLEVUE HOSPITAL.

By ERSKINE MASON, M.D.,

PROFESSOR OF CLINICAL SURGERY IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—The patient now before you is suffering from an affection which in itself is very slight, but one that is sometimes attended by most distressing symptoms—she has fissure of the rectum.

Patients suffering from the disease usually complain of a severe burning pain, occurring most commonly a few minutes after having a movement from the bowels, and especially if the fæces are at all hardened. This pain may last for hours and give the patient very great distress. It is probably the single symptom which is most characteristic of the affection, and is sufficient to warrant a most careful search for fissure of the rectum.

A common cause of this trouble is constipation. Under such circumstances, when an evacuation from the bowels does occur, it may be large, the hardened mass perhaps tears the mucous membrane, and a fissure is established. On the other hand, fissure of the rectum may follow an attack of diarrhœa. Again, these fissures sometimes result from specific disease.

They may be situated directly opposite the coccyx, or towards the perineal region, or upon either side of the rectum.

It is not unfrequently the case that patients suffer from this affection for a long time before they seek relief. They suppose that they are suffering from piles, and when they come to you for advice and describe their case, unless you are upon your guard, it may be mistaken for one of hemorrhoids, and a useless recommendation made. It frequently happens with fissure of the rectum that more or less of blood is lost with each movement from the bowels. That fact alone may tend to lead you astray, and bring you to the conclusion that the case is one of bleeding piles. Again, when you make an examination, you will frequently find the integument along the side of the fissure inflamed and œdematous, and a superficial investigation may lead you to the conclusion that the patient is suffering from an inflamed external hemorrhoid. The only manner, however, in which you will be able to make a correct diagnosis, is by a careful and complete examination.

As you examine these cases, you will almost invariably find associated with the fissure a little papillary enlargement which may have the appearance of a polypus. This polypoid appearance is due to simple hypertrophy of one or two papillæ in the neighborhood of the fissure. These enlarged papillæ may overlap the fissure, if it be a small one, and so conceal it from view. It is important, therefore, in your examination, if such a growth is present, to turn it to one side, and then may be exposed a slight fissure or crack, or grayish line in the mucous membrane that had previously escaped notice. This affection has also received the name of ulcer of the rectum.

The diagnosis having been made, the question arises, how shall the fissure be treated? Can it be treated successfully without resorting to operative procedure?

TREATMENT WITHOUT OPERATION.

In young subjects, and where the fissure is of recent origin, you can, in many cases, succeed in curing them without an operation. The treatment is to keep the bowels in a soluble condition, and make use of some astringent and sedative application. A very common prescription for this purpose contains zinc or stramonium ointment in combination with belladonna or opium. This plan of treatment is often followed by complete relief.

There are many persons who are remarkably timid when anything like operative interference is suggested, and you will be able to relieve a goodly number of such cases by pencilling the fissure to its bottom with a fine point of nitrate of silver, or with nitric acid. These applications relieve the pain, because they destroy the little filament of nerve which is exposed in the fissure.

In those cases in which the fissure has attained some size, you can always with the probe find one spot which is excessively tender, and when the nerve exposed at that point is destroyed by the use of any cautery, or by stretching the sphincter, the patient will be relieved.

RADICAL TREATMENT.

What is the radical treatment of this painful affection? It consists in dividing the mucous membrane and some of the fibres of the sphincter muscle with a knife. The object is to divide the filament of nerve involved, and, at the same time to put the parts in a complete state of rest. If the nerve-filament is left exposed, all the efforts made by nature towards effecting a cure are frustrated, because every time it is touched by the passage of fæcal matter the sphincter is thrown into spasmodic action, and the reparative process is destroyed. If the nerve is destroyed, and the parts put to sleep, as it were, the fissure is quickly

cured. This can be accomplished in two ways. *First*, by over-distention of the rectum. Introduce your thumbs, back to back, into the rectum, make forcible distention towards the tuber ischii, and carry it to the fullest extent possible. In that manner you will completely paralyze the sphincter, if the distention is done thoroughly, and perfect recovery usually follows. There is some danger, however, attending this operation, for you may lacerate the mucous membrane, or you may rupture some vein of considerable size which may give rise to troublesome hemorrhage. Such accidents are not common, but they may occur. The *second* way in which the nerve-filament in the fissure can be destroyed and the parts put at rest, is by means of a cutting operation. In performing this, you should always remove the little enlargement of papillæ which so commonly is present by the side of the fissure, for if you do not, the chances are that your operation will be a failure. The operation itself is very simple, and consists in this. Put the parts upon a stretch by introducing a speculum; the speculum is to be preferred to the fingers. When the parts have been moderately tense, simply draw your knife through the base of the fissure, and divide a few of the fibres of the sphincter muscle; it is not necessary to divide the muscle completely, but simply a few fibres. In this manner you divide the ulcerated mucous membrane, the irritated filament of nerve, and more or less of the fibres of the sphincter below, so that the parts are placed at rest. All that is necessary in the way of after-treatment is, to keep the patient in bed a day or two, and keep the bowels quiet. Before permitting the bowels to move, it is well to give an enema of sweet oil, or some gentle laxative.

FISTULA AND FISSURE.

You will recollect I told you that in some cases the integument by the side of the fissure would be inflamed and œdematous, and perhaps to such an extent as to give it the appearance of an inflamed external hemorrhoid. This irritation and inflammation may go on until an abscess is developed. Such an abscess will burst, and when you make an examination it may be found that there is a small fistula formed. The point to which I wish to direct your attention is this: if you are not thorough in your examination, you may operate upon the fistula only, and the patient will probably be cured of it, but the same agonizing pain will continue to be experienced after every evacuation from the bowels, simply because the fissure has escaped observation, and has not been cured. It occasionally happens that several fissures are present, and the question will arise—how are they to be managed? Is it necessary to cut all of them? It is not necessary to divide them all, for if one is thoroughly divided, the sphincter will be placed at rest, and the others will heal very readily.

[The fissure was exposed, and the cutting operation performed.]

NITRITE OF AMYL IN CHLOROFORM POISONING.—SIR: The subscriber would be obliged if physicians who have had cases in which nitrite of amyl was used to avert chloroform poisoning, would kindly send him notes of them, as he wishes to collect such cases for publication.—F. A. BURRALL, M.D., 28 West 11th st., New York.

SCHOOL HYGIENE.—In the discussion on Dr. Loring's paper, Dr. O'Sullivan stated that the *primary* departments of the public schools were overcrowded, but usually not the grammar departments.

Progress of Medical Science.

RECENT VIEWS ON INTERNAL URETHROTOMY.—Mr. Teevan's views, as given before the Surgical Section of the British Medical Association, were as follows: Most strictures are best treated by gradual dilatation with soft bougies, and an operation is only called for in certain exceptional cases. Operations on the urethra may be divided into two kinds: 1. Those which cut through a stricture. 2. Those which tear it open, as in the operation of so-called "immediate dilatation." The object of the operation is to insert a new piece of tissue, "the cicatricial slice," into the constricted urethra. The cicatrix which follows a laceration possesses the maximum amount of contraction, whereas, that which forms after a clean cut has only the minimum degree. Hence, a cutting operation is indicated rather than a tearing one. There are four kinds of cutting operations: 1. Scarification. 2. Subcutaneous. 3. External. 4. Internal. Scarification consists in notching the stricture with a four-bladed instrument. It has fallen into disuse because it is insufficient. A stricture must be cut completely through, and not merely notched. External urethrotomy is very rarely required, and then only when strictures are complicated with abscesses or fistulæ. Subcutaneous urethrotomy is eligible for single strictures, but internal urethrotomy can deal with any number. He has performed the operation thirty-three times, without a single death. According to the statistics of six surgeons, who have done the operation in all one thousand one hundred and ninety-two times, there were but ten deaths. That is, the mortality was very considerably less than one per cent. Mr. Arthur Dunham described a new urethrotome which he has devised to obviate some of the dangers which he thinks are liable to occur from the ordinary cutting instruments now used. The instrument is a tube having a hollow cylindrical handle at the proximate end, and at the distal end an elongated, slightly tapering dove-bulb, with four slits. Sliding within this tube is a second, somewhat longer, and having at its distal end four sharp-edged blades. The bulb having been passed down to the stricture, the blades are made to project through the slits and divide the strictured portion. The advantages of the instrument are: 1. The safety and facility with which it may be used. 2. The exactly limited depth to which the incisions extend. 3. Four incisions of slight depth are made instead of one of comparatively great depth. 4. The healing or cicatrizing process is facilitated. The instrument has been used in twelve cases, and the results so far have been satisfactory. Mr. Edward Lund, the President of the Section, remarked that the majority of cases of stricture can be treated only by dilatation; but dilatation must be repeated. The cases suitable for urethrotomy are the same as those which would otherwise, on the other hand, be submitted to Dr. Syme's operation. The question, therefore, resolved itself into internal *versus* external urethrotomy. If a guide can be passed, internal urethrotomy contrasts favorably with external urethrotomy. The next question is whether it is better to cut from behind forward, or from before backward. In cutting from before backward, it is possible to deal with finer instruments than in cutting from behind forward. He questioned whether the blade in Dunham's instrument would go far enough into the tissues beneath the cicatrix; moreover, as the cicatricial tissue does

not extend all around the urethra, the instrument cuts wider than need be. He thought it well, before proceeding to any operation, to pass gradually from fine to larger instruments before cutting at all. It was better not to keep the catheter in the bladder. Urethritis and other bad consequences were apt to follow. Splitting a stricture was not so good as urethrotomy; internal urethrotomy was better than perineal section, and to cut only in one place was better than in four, as, after healing took place, there remained but one cicatricial splice. Mr. Berkeley Hill stated that internal urethrotomy should only be employed in the comparatively small number of cases where experience has shown that gradual dilatation has failed to obtain lasting or satisfactory widening of the strictured parts. He would separate strictures into *penile*, or those situated in the pendulous portion of the penis; and subpubic, or those mainly situated in the bulb, and reaching to the membranous portions of the urethra. Penile strictures were most commonly resilient; they dilated easily, but almost as readily shrank back if treatment were intermitted. Division of such strictures had a more lasting effect and saved the patient from the trouble and irritation attending the constant passage of a bougie, though he was not saved by incision, any more than by any other plan of treatment, the necessity for occasionally passing a full-sized sound or bougie to prevent slow recontraction. Again, incision of the penile urethra by a sharp edge was only rarely followed by any injurious consequence. It was in that locality emphatically a safe procedure. Subpubic strictures, on the other hand, when but moderately developed, most slowly contracted after gradual dilatation, and were generally maintained of full patency by the occasional passage of the bougie once a month or quarter, or twice a year. Some strictures in this region depend generally on a large production of fibrous and elastic tissue. Such narrowings are very slow to dilate, and in doing this, great local irritation and distress is often caused. Incision is most suitable in such cases, to be done internally when possible; and cases where the external operation by button-hole incision is needed, he could not believe to be otherwise than most rare. Internal incision of subpubic stricture, caused by a copious fibrous thickening of the wall of the urethra, was deprived of much danger by the thickening itself. The cutting edge might be carried through such tissue safely without fear of its reaching to the vascular parts beyond. Thus, strictures that might be properly cut were the resilient or rapidly recontracting strictures, and the narrow tortuous ones, where a large amount of fibrous tissue existed. Mr. Hill expressed his conviction that there is no real "cure" for stricture. However treated, it will contract unless occasionally sounded. As an instance, he narrated the case of a patient who came to him from South Africa for treatment. The anterior portion of the urethra, which was perfectly normal, admitted a sound of thirty-eight millimetres circumference (one inch and a half), and after urethrotomy was performed, this instrument passed into the bladder. The patient left England using a bougie of thirty-two millimetres circumference, and in time reported complete recovery. Lately, however, Mr. Hill has received word that the stricture is recontracting, and the patient is expecting to return with the view of having the operation repeated.—*British Med. Jour.*, Sept. 1, 1877.

Atkinson on Perineal Section.—Mr. Atkinson, of Leeds, referring to a statement made last year by a London surgeon, that the *boutonnière* operation, or perineal section, was performed frequently and systematically at Leeds, said that in the infirmary of that town alone, thirty-nine cases had been operated on during the last three years. The mortality was seven, or about eighteen per cent. Of his own cases, two were desperate; in one, extravasation of urine had taken place, and in the other there were abscesses in the scrotum and perinæum; both of them died. Of the remaining seven, all did well. Mr. Atkinson related one case in which the patient, though cured, lost the ejaculatory power *in coitu*. The cause was not ascribed to the notching of the accelerator muscle, which Küss, of Strassburg, has shown to be not the real agent of ejaculation, but the division of the nerves of the membranous portions.—*Brit. Med. Jour.*, Sept. 1, 1877.

Anuria Lasting Twenty-five Days—Recovery.—The following extraordinary case, occurring as a sequela of scarlet fever, is reported by Dr. Wm. Whitelaw. The subject was a healthy boy of eight. December 3d, his urine was observed to be scantier than usual, and the amount decreased rapidly until the 7th, when only one drachm was passed, and from this date up to the 21st, not a single drop, and yet with the exception of a slight headache his general health was excellent. During this time diuretics and diaphoretics were tried without effect; on the 19th a blister was applied over the kidneys, and in twenty hours two ounces of urine were passed, when complete suppression again occurred. The blister was reapplied on the 27th, but with no success. Diaphoretics and purgatives were now discontinued in the hope of forcing the kidneys to act, but no change became apparent in the condition of the patient, who still continued in excellent health. On December 31st very slight œdema of the feet and ankles appeared; and on the morning of January 2d, one drachm of urine was passed. On the same day electricity was applied to the spine, and through the kidneys, and a small catheter passed into the bladder, in the hope of exciting reflex action. On the 3d and 4th of January about the same quantity of urine was passed daily, and on the 5th, a whole pint was voided in small quantities at eight different times. Since then the kidneys have acted well, and the boy has (January 12th) recovered.—*The Lancet*, Sept. 29th.

Relation between Urinary Secretion and Irritation of Spermatic Plexuses.—M. Nepveu read a paper at the Havre meeting of the French Association for the Advancement of Sciences, in which he gave the results of his continued researches on the variations which the urinary secretion may undergo as a consequence of various traumatisms. He has arrived at the conclusion that the testis may, in certain abnormal conditions (such, for example, as follow injections of iodine into the tunica vaginalis, and in neurosis of the testis), be the starting point of reflex actions affecting the urinary secretion. This reflex action, especially when caused by injections of iodine into the tunica vaginalis, is exhibited by a series of oscillations in the secretion, the first effect being oliguria, which lasts for some days, and is followed by polyuria, succeeded by a return to the normal condition. This result of the injection of iodized solutions into the tunica vaginalis may be regarded, M. Nepveu thinks, as an experiment which establishes the reality of physiological connection between the renal secretion and the irritation affecting the spermatic plexuses.—*The Lancet*, Oct. 6th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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MEDICAL MEN IN RELATION TO LEGAL TESTIMONY.

We seem to be passing through a period when the status of medical men in their relation to testimony given in legal cases is to be placed in a more definite light. The evidence in the Penge affair, in England, will benefit ourselves, if no others, by showing how much value is to be put upon the statements of ordinary practising physicians as to the cause of death, when they make post-mortem examination in obscure cases. Though the law recognizes each and every one of them as experts, it is quite clear that they are often far from being really such in a strictly medical sense. In this country we have just had a little experience of another point in such cases, viz., the relation of medical testimony to the law on the one hand, and a decedent's interest on the other. In an article published in the "*World*" of Nov. 16th, in reference to the Vanderbilt Will Case, we have noticed that a great display of apparent indignation and alarm was manifested by a writer, who seemed to infer that the medical gentlemen employed by Mr. Vanderbilt during life, or by his friends after his death, have failed to make proper use of their professional privilege in concealment of certain facts about the deceased, which came to their knowledge while performing professional duties. It is implied that their testimony should not have been allowed in a Court of Justice, on the ground of the following statute:

"Section 72. No person duly authorized to practise physic or surgery shall be allowed to disclose any information which he may have acquired in attending any patient in a professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon."

The writer, however, takes care to add that "the prohibition does not apply to an autopsy, but fortunately, unless in cases of suspected crime, an autopsy need not be made, and the friends of the deceased, except in such cases, can protect the surgeon, themselves, and the public." We fail to see how either this statute as it stands, or Sect. 834 in the Code of Civil Procedure, (which is about the same thing), applies to any of the medical gentlemen in the case, and as the writer expressly stated that it "does not apply to an autopsy," it certainly relieves the gentlemen who made this examination from any unpleasant burden which the tenor of the article might have appeared to throw upon them. When, however, the writer adds that "unless in cases of suspected crime an autopsy need not be made," we are afraid that he lays himself open to the charge of ignorance in medical matters, that is almost equal to his ignorance of the operations and purposes of the law. No post-mortems to be made except "in cases of suspected crime," has indeed a sort of ring about it that may commend itself to the false sentimentalism of those who believe that the wretched earthly casement of humanity is religiously inviolate when the breath of life has left it. This is not the view that the physicians hold, either of their patients or friends, and a very large number of our most cultivated people appear to agree with them. There is not a department of medicine in which advances are made with greater rapidity than in pathological investigations upon dead persons, and are we to be satisfied with the results merely that are reached in cases of suspected crime? Do the returns which we get from the investigation of criminal cases lead us to be satisfied in depending on them for our advances in knowledge? Are the drippings from the inquests of coroners or their deputies to appease the demands of science? Are we to be submissive and docile under the teachings of a political ring? No, the truth is that post-mortem examinations are gaining rather than losing in favor, and our best surgeons and physicians demand them as a measure of justice to themselves and for the satisfaction of the friends of the dead.

When medical testimony, as to autopsical revelations, is called for in court there seems to be no good ground for withholding it, and in a probate court contestants as well as proponents have an equal right to it. As a matter of fact in this particular case the proponent's counsel does not seem to have made any formal effort to exclude it, except when first the witnesses objected to testify. And this brings us to the most important point in such testimony, the question whether the medical attendant or employee has a moral right to disclose matters regarding the patient, either before or after death, when his knowledge may have been gained in confidence. It seems to be just here that the higher law comes in, which every conscientious physician will not be tardy to obey, whatever the personal consequences. We have reason to believe that no more

zealous guardian of such confidences can be found than the true physician, in cases where his conscience compels him to be silent, though the law may give him no immunity, and its officers instruct him to disclose. Fortunately, the law recognizes such exceptional cases, and a physician is protected, as in the well-known instance where it is sought to prove the presence of syphilis in a married man in a suit for divorce. In the case of which we speak, the matter seems to have been made sufficiently plain by a decision which governs the rulings of the Surrogate's court.

In the case of John Harrison's Will (Allen v. Public Administrator, 1 Bradford, Surrogate Reports, 221), in 1850, it was held that "the provision of the Revised Statutes that a physician shall not be allowed to disclose any information which he may have acquired in attending any patient in a professional character, and which information was necessary to enable him to prescribe for such patient," is not applicable to the physician of a deceased person, in a testamentary cause concerning the probate of the will of such decedent. The statute does not establish a general and absolute prohibition of such testimony in all cases; but secures a personal privilege to the party, not to the witness, which may be waived.

If such privilege does not die with the party, still before administration, in a testamentary proceeding, there is no one competent to assert the privilege in exclusion of testimony necessary to the determination of what constitutes the last will and testament of the deceased; and Surrogate Bradford, in delivering the opinion, said:

"I do not, in the first place, think that testamentary cases are within the reason or the intention of the statute in question; and secondly, if covered by its letter, then the decease of the party puts it beyond possibility to assert the privilege; and if still, from reason of public policy, the court should feel bound to extend and keep alive the privilege, that will not be done any further than is consistent with justice and good morals."

It will be seen by this decision that the whole matter is clear and unmistakable in a legal sense. Surrogate Bradford's opinion, given over twenty years ago, is now in force in the Surrogate's court, and probably will be until set aside by some other and more weighty one. From a legal point of view, we have nothing to say about it. From a moral one its tendency seems to be good rather than otherwise. There seems to be no proper reason for attempting to secrete from the litigants in this case facts which there was no effort made to conceal, and which, indeed, both the family and attending physicians and surgeons desired to have looked into. Nor, in truth, was any special attempt made to withhold the official report of the autopsy from the contestant's lawyers, and they very naturally have sought to make what use of it they could. Whether the public have any right to obtain such information in the courts of justice is another question, though one of no trifling account. When distinguished persons die, and medical men are asked to investigate the matter closely, they will undoubtedly do so to the extent of their ability, and as we advance in our ways and means of investigation, the examination will be closer, and the facts thus obtained will be brought out in a court of law, if there is litigation.

It is a serious question as affecting public policy whether such purely medical matters should be permitted to appear in the public prints; but this is a point not for physicians, but for legislators, and the journals that take pains to furnish such reports have only themselves to blame for the material they supply to their readers. There is little doubt but that the court would, in general, protect the decedent, in such cases, from testimony tending to defame or degrade his character, and even should it not, no high-minded physician will hesitate for a moment to refuse his testimony in such matters, and he may be sure of being sustained by what is higher than judicial enactments —the verdict of public opinion, and the approval of his professional brethren.

So far then as testimony has been furnished, it seems to have been in no sense "privileged," in a legal sense, nor was it a matter of conscience. The physicians very properly objected to testify, but on the ground that their information was not their own, having been furnished in a professional way to private parties, to whom, therefore, it belonged. The court, however, decided that it did not so belong exclusively to the parties, and instructed the witnesses to testify. Perhaps the law in such a case was thoroughly proper; at any rate, the physicians seem not to have made any statements that could in any way lower or defame the decedent or his family, unless it is a disgrace to be an heir to common physical weaknesses, or to die with a somewhat extraordinary number of pathological lesions.

SCARCITY OF DOCTORS IN RUSSIA.

We are informed that there is a great scarcity of medical men in Russia. In fact, since the war, and in consequence of the absence of the large number of Russian surgeons upon the field, the people actually suffer for the want of proper medical attendance. It is owing to this scarcity of medical men that the training of women for medical positions has assumed an importance in Russia which it has not acquired elsewhere. In the present state of overstocking of the medical market in this country, Great Britain, and several parts of Germany, these facts may appear quite startling, but in reality they are not so, when we take into account the high standard of medical education in that country, the small number of medical colleges, and the absence of a "generous rivalry" to graduate large classes. The dearth of doctors can at best be only temporary, as the supply of even first-class talent

will be always sufficient to meet any demand for it either in Russia or anywhere else. The only trouble with us here is, that we are getting too much of a stock ahead, and a consequent depreciation of the market value of medical services. In this connection, and as germane to this subject, we would refer our readers to the remarks on some of our present abuses on medical charity, made by Dr. Gibney at a recent meeting of the Medical Journal Association. It is certainly sorrowful to contemplate the immense amount of clinical material as well as paying practice which is now running to waste in Russia.

Reviews and Notices of Books.

Forensic Medicine and Toxicology. By W. Bathurst Woodman, M.D., F.R.C.P., Assistant Physician to the London Hospital, Physician to the North-Eastern Hospital for Children, etc.; and Charles Meymott Tidy, M.B., F.R.C.S., Professor of Chemistry and of Medical Jurisprudence and Public Health at the London Hospital, etc. Philadelphia: Lindsay & Blakiston. 8vo, pp. 1083.

We have before us a new candidate for favor with the medico-jurists of this country. Its reception in England has been sufficiently gratifying to warrant its republication in this country. Although compressed in one volume, and thus made cheaper than the two volumes of the original English edition, there is the usual drawback of poor paper and indifferent typographical execution. But this is by the way. Of the book itself as a treatise upon a general subject in which every practitioner is interested, we have much to say in the way of praise. Its completeness is its principal recommendation. It is a matter of astonishment to the reader to see how much valuable and accurate information is condensed, comparatively speaking, in such a small compass. There is also a freshness about the make-up of the book which is agreeable to the student accustomed to the other standard treatises. The subject of toxicology justly receives a very extended notice, and leads the student into all the intricacies of chemical analysis, the thorough mastery of which is so important to the expert. In the description of the processes we notice that the strictly scientific nomenclature has been in a measure ignored, but this is evidently done purposely to aid more intelligible consultation on the part of the legal profession. Unlike most works of its class, the subjects are viewed more from the medical than strictly legal standpoint, and we think this an advantage to both professions. From the bewildering number of subjects discussed, it is impossible to name even a few of the many which are specially interesting to the general practitioner, not only from a medico legal point of view, but from that of scientific study. Adding to the practical interest of the volume there are eight well-executed chromo-lithographs, illustrating respectively stomachs poisoned by arsenic, corrosive sublimate, nitric and oxalic acids, spectra of blood; and three plates on microscopic appearances of human and other hairs. While speaking of blood spectra we are reminded that the article on blood, microscopically considered, is one of more than ordinary interest. Besides the illustrations alluded to above, the text is further embellished with one hundred and fifteen woodcuts. Altogether, the work will rank with the best of its class as a medico-legal handy-book, and cannot fail to gain a wide popularity.

The Index of Diseases and their Treatment. By Thomas Hawkes Tanner, M.D., etc. Second Edition. Revised by W. H. Broadbent, M.D., Fellow of the Royal College of Physicians, etc. Philadelphia: Lindsay & Blakiston. 1877. 8vo, pp. 432.

This work, like others from the gifted author, has already won for itself a reputation. The second edition of the Index, revised by Dr. Broadbent, carries out the original design of the work, and makes it in the highest degree useful to the general and busy practitioner. To those who are not acquainted with the plan of the work, we may say that it is a condensed treatise on the general practice of medicine. When the description and treatment of any given disease is compressed in an ordinary sized paragraph, it is easy to understand what an immense variety of subjects are noticed, and how tersely they are presented. It is in truth, what its title indicates, "*An index of diseases and their treatment.*"

Handbuch und Atlas der Topographischen Percussion. Von Adolph Weil, Prof. a. d. Universität Heidelberg. Leipsic: F. C. W. Vogel. 1877.

This is the first work devoted solely to the study of topographical percussion in health and disease that has so far been published in Germany. As far as we have been able to learn, no work of the sort has ever appeared in English. The first part of the book is devoted to brief articles on the theory of the percussion note, the methods of percussion, the special rules to be followed in determining the outlines of organs, and on dermography. The different parenchymatous organs are then considered in detail with regard to their anatomical positions and boundaries both in health and disease. Finally, the alterations in the percussion notes and the topography of the body in several special pathological conditions, viz., pulmonary cavities, emphysema, pneumothorax, exudations into pleural and peritoneal cavities, and meteorism, are fully described. The work is enriched by 26 lithographic plates, on which the outlines of the different organs in health and disease are projected in colored lines. The book is certainly a very valuable contribution to medical literature, but the fact that it is devoted to the consideration of only one branch of physical examination will not be likely to increase its popularity in America.

The Physician's Visiting List for 1878. Philadelphia: Lindsay & Blakiston, 1878.

Messrs. Lindsay & Blakiston are the first in the field with a visiting list for the coming year. As usual, it is published in good style, with fine paper, good pocket-book cover, and its inside arrangement is the perfection of simplicity. It is now in the twenty-seventh year of its publication, being the first work of its kind issued in this country. A commendable feature of the List is that but two or three leaves are occupied with printed matter, almanacs, antidotes, etc., the remainder being devoted to a systematic record of practice.

Population of Germany.—The population of Germany in 1871 was 41,058,792. At the end of the year 1875 it had increased to 42,727,360. The increase was general, but was greater in some states of the empire than in others. In Prussia, for instance, it was greatest, while it was least in Alsace, Lorraine, and Mecklenburg.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Oct. 10, 1877.

Dr. E. G. Janeway, President, in the Chair.

The President stated that he had examined the specimen of heart presented a month previously by Dr. Flint, and removed from a gentleman who died without apparent cause, and did not discover enough fatty degeneration to account for the cause of death.

Dr. Delafield presented a specimen of fusiform aneurism of the thoracic aorta on behalf of a candidate for admission.

OVARIOTOMY DURING PREGNANCY—AN ERROR IN DIAGNOSIS.

Dr. Erskine Mason presented a uterus which illustrated a blunder in diagnosis, and which on that account he desired to place on record in full. The history was as follows:

A. B., aged 30; Ireland; single; was admitted into Roosevelt Hospital July 30, 1877. Gave the following history: Family history good. Menstruation began at the age of 15; was normal in every way until four years ago. At this time her menses, instead of lasting four or five days, continued but for two days, flowing slightly only the first day. The period, however, between menstruation was the same as before. Since last March, though regular, she has lost less blood, and for the past two months has scarcely had a show. (According to statement she made the members of house staff, who took her history, "for the past two months she did not menstruate at all.") About a year and a half ago she noticed that her abdomen was increasing in size, more particularly on her left side. This enlargement increased very slowly up to last March, since which time it had grown very rapidly. For the past two months she has had trouble in breathing while lying in bed, and for the past two weeks she has been obliged to sit up in a chair at night, on account of difficulty in respiration. Bowels costive, urine passed somewhat more frequently of late, and the amount diminished. For the past four weeks there has been some swelling of the feet. Previous to her present trouble she was a strong, healthy woman. For the past two years she has been losing flesh, more especially during the last eight or nine months. Appetite has become poor, but digestion has remained good.

Her countenance was distinctly that of a woman suffering from ovarian tumor. Upon vaginal examination the mucous membrane of the vagina was of a dark hue, the veins somewhat varicose in places; a good deal of vaginal discharge was also present. The uterus was high up in the pelvis, not readily movable, and the cervix to the touch was neither hard nor very soft, but felt as if eroded. The uterine sound was arrested at the distance of two and three-quarter inches. Physical examination of chest revealed the organs healthy. For the first day after entering the hospital there was a trace of albumen in the urine; this passed away, and repeated examinations failed to reveal casts.

Examination of abdomen revealed a greatly distended abdomen, measuring from one anterior superior spinous process to the other 19½ inches; from either anterior superior spinous process to umbilicus, 10 inches; from ensiform cartilage to pubis, 19¾ inches; circumference at umbilicus, 39 inches; circumference just below umbilicus, 38½ inches; at the depression or groove, presently to be spoken of, 37 inches; percussion of abdomen gave flatness except posteriorly; axillary lines where it is tympanitic; fluctuation distinct, not altered by change in position; more distinct in upper than in lower portion of abdomen; low down in left iliac region fluctuation less distinct, and to the feel seemed as if this were the more solid portion of the cyst. About two inches below the umbilicus there was noticed a distinct depression or groove, which was regarded as indicating the presence of two large sacs, or else due to the pressure of the clothes of the patient.

The case was regarded as one of large ovarian tumor, and one demanding operation. The presence of the congested appearance of the vagina led to the suspicion in the minds of some of the house staff that perhaps the case might be complicated with pregnancy. To me, however, this suspicion did not occur, for I thought I could readily account for the congested appearance of the vagina from the pressure of the large tumor. Again, from examination and from what I had heard of the character of the patient, I had no reason to doubt the truth of the statements she made me. The abdomen, however, was several times carefully auscultated by the house physician, and no evidence of pregnancy discovered.

On the 10th of August, her general condition having improved, at 3.30 P.M. I proceeded in the usual manner to do ovariotomy. Upon opening the cavity of the peritoneum considerable ascitic fluid escaped, and a tumor presented itself at the wound, dark grayish in color, and this was taken to be the more solid portion of the tumor. To the touch it gave the sense of obscure fluctuation. A sound was now passed in, and no adhesions detected, save in left iliac region, and these were slight. The fingers followed the sound, and the same result obtained. Spencer Wells's trocar was now introduced into what was taken for the lower cyst, and about eight ounces of a thin reddish fluid withdrawn. The fluid ceasing to run, the trocar was withdrawn and the finger introduced into the womb, when to my surprise I felt that the trocar had probably entered a pregnant uterus, and that my finger was actually in contact with a placenta. This statement I made at the time, and it was confirmed by the touch of others. The wound in the uterus was speedily closed by catgut sutures; these failing to prevent all bleeding, a silver wire was introduced around the opening and twisted, which prevented further bleeding. The abdominal opening was now enlarged and revealed an enormous ovarian cyst springing from the left ovary, enveloping the upper portion of the uterus, and extending up to the diaphragm, to which it was in close contact. Not being enabled to pass a sound between the tumor and the diaphragm, and being at a loss to determine whether extensive adhesion existed or not, and owing to the injury already inflicted upon the uterus, it was deemed prudent for the present to suspend further proceedings. The wound was accordingly closed with catgut sutures and dressed after Lister's method—the operation itself being done under the carbolic spray. The patient passed rather a restless night, and at 3 A.M. she complained of something coming down in her vagina, though she has complained of no abdominal pain. Upon examination, there was discovered a fœtus with its membranes protruding from the vagina; this was removed, and in a few moments it was followed by another with the membranes entire. From examinations of the fœtuses it was supposed they were between five and six months. Patient gradually sank, and died at 12.30 P.M., 18½ hours after the operation and 9¼ hours after delivery.

Autopsy.—Uterus well contracted; peritoneum normal: no blood in peritoneal cavity; a large multilocular cyst arising from left ovary; kidneys congested; other abdominal viscera healthy; silver wire which was passed around opening in uterus had slipped off and was found in front of uterus. No adhesions of sac to abdominal walls were found.

In concluding, Dr. Mason remarked that in the history of ovariotomy similar cases were mentioned. He had no doubt if all those were reported the difficulties in the way of diagnosis would be better appreciated. He believed every care was taken to make a correct diagnosis, although he confessed that the idea of pregnancy did not seriously impress itself upon his mind. Members of the house staff, however, examined her with reference to this point, but failed to discover any signs save blueness of the vagina.

Dr. J. C. Peters expressed thanks to Dr. Mason for the frank manner in which he had reported the case.

Dr. Janeway remarked that recoveries under such circumstances had taken place.

Dr. Mason remarked that if he had been certain no adhesions existed he would have removed the sac at once. Spencer Wells had operated nine times under the same circumstances.

Dr. Beverley Robinson presented some pinkish albuminous fluids removed from a fibrocystic tumor of the neck by a trochar and canula. The cyst had been punctured on three occasions and injected with tincture of iodine. The result was quite satisfactory.

Dr. Mason referred to two similar cases in which the same operation was performed by Dr. Weir with good results.

Dr. Abbe presented, on behalf of a candidate for admission, a beautiful collection of specimens, illustrating general carcinosis, Dr. E. C. Seguin demonstrating the different microscopical appearances.

PERITONITIS IN CHILDHOOD CAUSING DEATH BY INTESTINAL OBSTRUCTION AT SIXTEEN.

Dr. Janeway exhibited a specimen removed from the body of a young lady aged sixteen years. Previous to the illness which resulted in her death she enjoyed uninterrupted health from the time she was two years old. The history of her last attack dated four weeks before her death. The symptoms were colicky pains attended with vomiting. The family physician, who was attending her sister for some malarial trouble, had his attention drawn to this patient's case, and, supposing there was also some malarial complication in the case, prescribed for her without seeing her. She became better of this vomiting after a few days, and a fever, which was said to have existed during the attack, disappeared. Exactly a week after the attack she was taken down with the same symptoms, confirming in a measure the previous suspicion regarding malarial origin. After three days she again recuperated, and on the seventh day again presented the same phenomena of symptoms. Another physician was then called, but the diagnosis arrived at was not ascertained. Three days more, there was another partial recovery and another seizure. Dr. Janeway saw the case once after the third relapse. He found her vomiting everything which she swallowed, and complaining of severe colicky pains. By percussion, the large intestine, filled with gas, was easily mapped out. By pressure, this gas was made to move along the canal without apparent arrest or interruption. No tumor was discovered. The patient had passages from the bowels, but they were not free. In the course of a few days again she had another and fourth relapse, from which she did not recover, vomiting constantly, and dying from sheer exhaustion. Just previous to death she had three involuntary alvine evacuations.

At the autopsy it was found that the small intestine was much shorter than it should be—possibly one-fourth. It was gathered up in quite a mass towards the ileo-cæcal valve. There a portion of the intestine, half an inch from the valve, was covered with very thick peritoneum and constricted for a distance of two inches or more. At first this hardened constriction was thought to be an intussusception, but a careful examination proved the contrary. It was caused by the presence of from fifteen to eighteen inches of intestine, looped and curled on itself, beneath this thickened peritoneum. The contraction of this portion of peritoneum, and perhaps, to a certain extent, the growth of the intestine, had brought these fifteen to eighteen inches into two inches. There was a catarrhal inflammation of the small intestine from that point to the stomach, and associated with that condition was considerable dilatation. The constricting band was evidently due to old peritoneal inflammation. Associated with it were old membranous adhesions of spleen and liver to the diaphragm.

The most interesting part of the case has reference to the supposed origin of the peritonitis, which in the end caused her death. In the absence of any other fact bearing upon this point, Dr. Janeway inclined to the opinion that the adhesions and constriction were associated with the sickness at two years of age. At that period the child was believed to have had pneumonia with pleurisy. It was very probable that marked peritonitis was associated with those conditions; that effusion of lymph had taken place around the liver, spleen, and small intestine, and by interfering with the proper functions of the latter, had finally eventuated in death. It may be mentioned in this connection that, for some months before her death, although her appetite was excellent, and she consumed a great deal of food, she did not seem to gain flesh nor develop, as might have been expected. In fact, her intestine, although large enough for a child, and capable of supplying her demands, was unable to meet the emergencies of maturer years, and hence the periodical efforts of nature to strike a balance. The diagnosis made during life was catarrhal gastro-enteritis. There was a suspicion of mechanical obstruction, but it was not confirmed by the ante-mortem examination.

Dr. Delafield thought that the explanation was quite satisfactory. The fact was frequently recognized that peritonitis occurs in children without the knowledge of the physician, but the combination of circumstances and the relation of cause and effect in the present case were truly remarkable. It was a striking example of outgrowing one's intestine.

The Society then went into Executive Session.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting, Nov. 2, 1877.

Dr. J. H. Emerson in the Chair.

THE MEDICAL PROFESSION AS RELATED TO THE MEDICAL CHARITY ABUSE.

Dr. V. P. Gibney read an interesting paper upon the above subject. It was assumed that the alarming extent to which the abuse had been carried in the city of New York had been proven. Passing reference was made to the legitimate results of the tolerance of

so great an evil in our midst, namely, suffering entailed upon many young and hard-working physicians, and educating a class of people into respectable pauperism.

When the question was raised, who was to blame for all that? the managers of hospitals and dispensaries threw the entire responsibility upon the medical profession. Indeed, we could accuse ourselves of aiding and abetting this gigantic evil. The question, however, naturally arose, how did medical men earn a livelihood? There was an intuitive repugnance to advertising, and besides it was prohibited by the code of ethics. Members of the medical profession, however, did advertise in very many ways. Out of 1,200 physicians belonging to the regular profession in the city of New York, there were found 566 who held positions in the various eleemosynary institutions. Besides these there were a large number of societies and orders which gave advertisement to their physicians on the published pages of their annual reports. Those who did not enjoy such opportunities of displaying their skill as college professors and others must make their money off the general public as best they could. There were many honored members of the profession who were obliged to earn their bread, and hence in the struggle might lie the secret of that suicidal generosity which managers of our public charities in this country and abroad so often placed to our credit.

A legitimate way of advertising was desired by the specialist and by the young man sitting day after day in a lonely office. The clinical professor desired the dispensary appointments for the sake of his assistants, who would generously feed his clinic. Material must be had. On the walls of our dispensaries hung maps, on which were marked the boundaries of the district, and no one was to be regarded as a fit subject for relief unless residing within such limits; yet it was a well-attested fact that a patient in one dispensary district might be under treatment at two or three dispensaries within the same day or week. The doors were now thrown open not only to the inhabitants of the city of New York, but to the dwellers in suburban cities, and even of States near and remote. Now, if any censure was to be attached to the profession, as related to the abuse as it existed in these charities, it certainly must attach to a large proportion in so far as they lent their recognition.

The Doctor then passed to the consideration of hospitals, and spoke of those for the treatment of special diseases as follows: "My impression is that the 'struggling practitioner' of the city, or the country, cries most loudly against the injustice done him here. Men, who have attained an enviable degree of eminence, establish a *high* fee system; then they establish hospitals which shall be as near as possible self-supporting, and give their services gratuitously. A patient applies to them at their office for advice—the advice is given—an operation, say, is advised. Then naturally arises the question of fee; this is given as two, three, or five hundred dollars. The fee is utterly beyond the patient's ability to meet, and he says so finally. Then, if he can only pay what would be regarded as a handsome compensation for some fellow-practitioner whom the distinguished man under consideration knows to be as competent as himself, but who does not enjoy so fine a reputation, the patient is not referred to this competent fellow-practitioner, but is told that he can go to a certain hospital, pay his board, and get the services, valued so highly, for nothing. Now, I am aware that much can be said in favor of such a practice, or in extenuation at least, but still the struggling practitioner cannot help but feel that he is outraged none the less by the system, and charity is shamefully abused. Yet physicians secretly complain of these things and publicly uphold the very men against whom they feel so aggrieved."

The cry of reform rang out loudly on the question of hospital management. In a very few had the profession any representation in the board of directors, and it was in some of them that the greatest abuse of medical charity could be found. Most of the medical charities in England and this city were founded by medical men, yet they were deemed incompetent to even advise in regard to management, while for their abuse the profession was held accountable.

Reference was then made to the abuse existing in college clinics. "The story is an old one," said the Doctor, "and need not be dwelt upon." In New York 158 doctors held college appointments, and to them the profession in general was asked to look for examples in the observance of that code of ethics which we held up to the admiration of the world.

HOW WAS THE ABUSE TO BE REMEDIED?

The Provident Dispensary Plan had not met with the success anticipated. Still the remedy was thought by some to be there. The question, however, arose, how could that reform be applied to college clinics? Reference was made to the plan suggested by Dr. Hanks (see RECORD, May 5, 1877). It was believed that that plan would correct most of the hospital and dispensary abuses. Again, the visitors of "The Association for Improving the Condition of the Poor" could issue tickets for dispensaries to worthy applicants. Again, the Society of St. Vincent de Paul, which had the city divided into districts, would cooperate with our public charities. Of course, the specialists in dispensaries would not like this, because it would limit their material. The clinics and endowed hospitals which were virtually above criticism would not like to be thus hampered. Still that did not detract one whit from the value of the plan as a reformatory measure.

Passing notice of several plans was made but the one most fully dwelt upon was that called "The Home Dispensary Plan." Let those physicians who were interested in a certain class of diseases, or who wished to study up a certain specialty, advertise to the profession in the medical journals, or preferably in the Medical Register, that on certain days and hours they would treat gratuitously, at their own office or any other designated place, the ambulant poor who were affected with certain diseases. Drs. A., B., and C. might treat skin diseases; Drs. D., E., and F. might treat diseases of the eye, etc. They would then become personally responsible for any abuse of their charity, and it was probably safe to assert, that the aforesaid doctors would get all the money they could, even if the fees were insignificantly small. They would study the cases well, and we could rest assured that any deserving patients the profession might send them, would receive good attention.

The first objection presented was that it seemed to be in direct violation of the law in the code which prevented a man from advertising his specialty. Yet wherein was the difference between a man advertising far and wide, not only to the profession, but to the public, that on certain days he would treat all cases of a certain disease at some dispensary, hospital, or college? He was not obliged to put up his sign at the office, as it was put up at the dispensary. Whence would come the drug supply? There were but few patients so poor, but that they could pay a small sum

for medicine. Most apothecaries would prepare prescriptions free for the absolutely poor, provided they had some guaranty that they could get a reasonable number from those who could pay. A doctor could prescribe economically and effectually, if he studied the pockets of his patients.

The plans brought forward were:

1. The Provident Dispensary.

2. The plan of district visitation under the supervision of a General Board of Charitable Dispensary and Hospital Trustees. The plan proposed by Dr. Hanks.

3. The connection of hospitals and dispensaries with the Association for the Relief of the Poor.

4. The appointment of active visitors, to be paid, if necessary, by each board of a dispensary or hospital, whose duty it should be, in conjunction with the house physician, to see that no improper objects received medical charity gratuitously.

5. The individual effort or concerted action plan on the part of physicians most aggrieved. This simply had for its object the establishment of such an *esprit de corps* in the profession as should prevent any encouragement from the medical profession to the charities thus abused.

6. The Private or Home Dispensary Plan. Dr. Gibney believed, however, that the first thing to be done in the way of reform was to obtain union of action on the part of medical societies. Let committees be appointed, with chairmen thoroughly versed on the whole question, and able to communicate their thoughts clearly and forcibly. Let these committees crave a hearing before the boards of management of the different dispensaries and hospitals throughout the city in the interest of reform, and let sermons be preached to them until the needed reforms were thoroughly and permanently accomplished.

The paper was discussed by Drs. Loring, Fox, Porter, Bull, and others.

A vote of thanks was extended to Dr. Gibney for his paper, and the Association adjourned.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 11 to November 17, 1877.

Storrow, S. A., Major and Surgeon. Relieved from duty in Department of California, and to report to Commanding General Department of the Platte for assignment. S. O. 232, A. G. O., Nov. 13, 1877.

Barnett, R., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 166, Dept. of the Gulf, Nov. 9, 1877.

Medical Items and News.

Tænia Solium in a Child Two Years of Age.—Dr. D. W. Heisberg, of Nebraska City, writes: "According to medical authorities, tænia occurs very infrequently in early life. Dr. J. Lewis Smith, who has had much experience, says in his work on 'Diseases of Children' that he has met but one case only under the age of five years. Others have occurred, but are quite rare. I have now in my possession a specimen of *tænia solium* recently expelled from a child about two years of age. One portion thereof was fifty-nine inches long at the time of expulsion. It was accompanied by forty-nine detached and separate segments. The whole length was estimated to be about eight feet. This was expelled after administering spt. terebinthinæ with ol. ricini. The tænia still remains, however, as segments have since been discharged. I report the case simply from the fact that it occurs so seldom at this youthful age."

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending November 17, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Nov. 10.....	0	17	25	2	11	49	0
Nov. 17.....	0	9	59	1	17	57	0

Post-mortem Cæsarean Section.—Dr. Veronden reports that a woman, thirty-five years of age, the mother of several children, and in the sixth month of pregnancy, came under his treatment for syphilis. He gave a very bad prognosis, but her husband begged him, in case the woman should die, to endeavor to save the child, or at least render baptism possible. The doctor soon received notice that the woman had died suddenly during an attack of hæmoptysis. On his arrival at her house, two hours after her death, the fœtal heart could still be heard with the stethoscope. The woman was undoubtedly dead, but this could not be determined with *positive* accuracy. Cæsarean section was therefore performed, according to the rules of the art, as though the woman still lived. A living child, not yet six months old, was removed. It was carefully carried to the church, baptized, and lived for several hours after the ceremony.—*Norsk. Mag. f. Laev.*, No. 6, 1877.

Sanitary Legislation in England.—The sanitary measures submitted to the English Parliament during the last session were, with one exception, abortive. The one that met with favorable consideration was "The Canal-Boats Act," by which the local government is empowered to make regulations (*a*) for the registration of canal-boats, including certificate of registration; (*b*) for the lettering, marking, and number of such boats; (*c*) for fixing the number, age, and sex of the persons who may be allowed to dwell in a canal-boat, having regard to the cubic space, ventilation, provisions for the separation of the sexes, general healthiness and convenience of accommodation of the boat; (*d*) for promoting cleanliness in and providing for the habitable condition of canal-boats; (*e*) and for preventing the spread of infectious disease by canal-boats.

Dr. Edward Seguin's Prescription Record has been adopted in France and Italy.

The Consumption of Champagne.—Of the sixteen million bottles of champagne that are annually produced in France, only three million are consumed in its native country, the other thirteen million being exported to foreign countries. Over a million bottles are exported annually to North America. In the first half of the year 1876, 604,620 bottles were sent to the city of New York alone. These figures do not by any means represent the entire consumption of champagne in North America, since large quantities are made from California grapes, and not a little is manufactured entirely without the assistance of the juice of the grape.

Original Lectures.

TREATMENT OF FRACTURES OF THE SHAFT OF THE FEMUR IN THE ADULT.

CLINICAL LECTURE, DELIVERED IN BELLEVUE HOSPITAL, N. Y.

By FRANK HASTINGS HAMILTON, M.D.

GENTLEMEN:—I have just re-entered upon the duties of my service in this hospital, and I find ten cases of fracture of the shaft of the femur in adults, and under treatment according to a plan which I have adopted for the most part during the past few years. With this number of cases before us, I thought it would be of sufficient interest to devote the entire hour to the consideration of this subject. All these patients with the apparel upon them have been wearing it since their admission. To some of the patients the apparatus was applied during my previous service.

In order that you may understand precisely the peculiarities of this plan of treatment, it is necessary that I should call your attention to the progress which the treatment of fractures of the thigh has made during the last century. Observe, gentlemen, that I am calling your attention to fractures of the thigh exclusively. I shall also limit myself to the consideration of fracture of the shaft of the femur, not including fracture of the neck or lower third, and I shall limit myself still further by studying the treatment of fracture of the shaft of the femur in the adult.

The treatment of fracture of the thigh in children is exceptional, and differs from that usually adopted in case of the same accident in the adult.

TENDENCY TO SHORTENING.

First. I wish to remark that fracture of the shaft of the femur in the adult is almost always oblique. The fracture is usually very oblique, so much so, that it almost never happens that we can set it, in the ordinary sense of the term; that is, we cannot make the fragments set supporting each other. The fracture is so oblique, that unless the fragments are maintained in position by extension and counter-extension, they always overlap each other. This is the law. There are exceptions, of course, as, for example, when fracture occurs in a paralyzed limb, etc.

When the fragments overlap, there will be a projection equal to the entire thickness of the bone. This is illustrated in the specimens you see here. In this specimen the fracture took place about the middle of the shaft, and the overlapping, as you see, is as has already been stated, and the projection is very marked.

The same thing can be observed in another specimen, in which the fracture occurred a little higher up, very near to, but not involving the neck of the bone. In this case there was no extraordinary obliquity, but the fragments overlapped each other fully two inches, the lower fragment riding upwards until it impinged against the neck of the bone.

As a rule, then, there is no such thing as setting a fracture of the shaft of the femur, in the ordinary acceptation of that term. The bone can be placed in position, and held there, perhaps, if sufficiently powerful extension and counter-extension are employed, but it does not set upon itself so as to hold itself.

In this particular instance the plaster-of-Paris dressing was employed, and was applied while the patient was under the influence of chloroform, and while full extension was made with pulleys. The splint was worn for several successive weeks, and when the patient died, two or three years after, it was found that just such shortening as the condition of the bone would permit had taken place; the lower fragment had ascended until it struck the neck of the bone. Practically, there was no extension or counter-extension in the case.

HOW THE TENDENCY TO SHORTENING IS TO BE OVERCOME.

How is the tendency in the fragments to overlap, from the action of the powerful muscles, to be overcome?

Certainly never by setting the bone, as it is called, and then binding it tight with bandages, because you will have cut off all circulation in the limb long before you can bind it sufficiently tight to maintain the proper position of the fragments. This is but plain common sense. No surgeon would dare to attempt to treat fracture of the thigh in that manner. He may put on lateral supports and apply bandages, and the position of the fragments may be in some slight degree maintained by pressing them against each other, but this dressing will not prevent shortening.

How then will you overcome the tendency to shortening?

Until the latter part of the last century all surgeons from the earliest periods employed the long, straight splint. The method was generally to simply pull the limb out to a certain length, and then bind a long, straight splint to the side of the limb and side of the body. The old-fashioned long splint is illustrated by this simple and practical device employed by a surgeon under Stonewall Jackson, that great soldier and good man. It is the simplest and most prompt plan which could be carried into effect in an army constantly upon horseback. Essentially that plan was employed up to the time of Pott, who at the close of the last century wrote an essay, in which he declared that fractures of the thigh all united with great shortening, but that this tendency would be overcome by placing the limb in a flexed position.

This was a new theory, but one which was specious, and which was soon accepted by the English surgeons, a few American surgeons, but never by the French. It soon came to be known as the treatment by the use of the double-inclined plane, although the original idea of Pott was simply to flex the limb, hoping thereby to overcome the action of the muscles. This plan of treatment by the use of the double-inclined plane, or by the flexed position, as it is also called, has its advocates to the present hour.

In England there is, perhaps, no surgeon of eminence who employs it; in France it was never adopted; but in the United States the late Dr. Nathan Smith and Dr. Nathan R. Smith employed it. And Dr. Hodgen, of St. Louis, one of the most distinguished surgeons in the West, still employs this method of treatment. The Drs. Smith employed and Dr. Hodgen employs suspension in connection with it. There are, perhaps, a few other leading surgeons connected with large hospitals who prefer it yet, but almost universally it has been discontinued. These are simple facts, and with here and there rare exceptions, the profession has returned to the use of the straight splint; and I think surgeons have done so because they have found they can make longer and straighter limbs in this position. Let us then return to a consideration of the history and progress of the treatment in the straight position.

[A number of straight splints illustrating the various modifications of the old long splint were exhibited.]

How did surgeons formerly contrive to get hold of the foot in order to make *extension?*

It was always done by means of some form of gaiter, and here you can see some of the varieties which have been employed. They all were intended to get hold of the foot in its circumference, and in as comfortable a way as possible, to afford a means by which extension could be made. But all of them were liable to cause ulceration at some point; sometimes on the instep, sometimes on the top of the heel behind. Ulcers were almost certain to be made if very much weight was employed in making the extension.

As to the *counter-extension*, that was made in essentially the same manner—that is, by some mode of pressing against the tuberosity of the ischium. A variety of methods have been employed, but that which has been most generally used is the perineal band.

But what has been the experience in the use of the perineal band? Every now and then a deep ulcer has been caused by this means of making counter-extension.

We had then two evils to contend with: *first*, the extension apparatus, which was liable to give rise to ulcers upon the top of the foot and heel; and *second*, the counter-extending band, which was liable to give rise to ulcers in the perineum. The liability to make ulcers was so great that the limit of our extension was about ten or fifteen pounds.

EXTENSION BY THE AID OF ADHESIVE PLASTER.

At length Dr. Josiah Crosby, of Hanover, N. H., devised the method of making extension by the aid of adhesive plaster applied in strips to the sides of the limb. Broad strips of adhesive plaster were laid along the lateral surfaces of the leg, and secured in place by means of bandages. They take hold upon the skin and nowhere else, and it was soon found that an extension weight of twenty or twenty-two pounds could be used without the least liability of producing ulceration. That was the first great step of progress made in the treatment of these fractures. It gave us a means of making extension which was in every respect satisfactory.

MODES OF MAKING COUNTER-EXTENSION.

Still there was need of some mode by which counter-extension could be made without incurring the risk that attended the use of the perineal band. It remained for Dr. Van Ingen, of Schenectady, N. Y., to suggest that, if the foot of the bedstead was raised, we need not use the perineal band.

It is now more than twenty years since I first had my attention drawn to this suggestion, and I did not then believe that it would ever answer as a method of making counter-extension. It will not answer if employed as Dr. Van Ingen recommended, because he raised the foot of the bedstead so high that the patients could not endure the discomfort produced in their heads. But Dr. Moore, of Rochester, took up the suggestion and began to put it into practical application, and it was not long before we became satisfied that it was *the* method of making counter-extension. It has been many years since I have seen a perineal band in this hospital. We make our counter-extension in every case in adults by simply raising the foot of the bedstead about four inches, and it is sufficient to enable us to apply twenty or twenty-two pounds of extending force, if necessary, without pulling the patient down in bed at all, provided the head and shoulders are properly supported. This method of making counter-extension certainly never causes ulceration. We have then a means of making extension which does not give rise to any trouble, and the same is true of counter-extension.

In order that we may have the counter-extending force furnished by the entire weight of the body it is necessary that the pillow should support the *head only*, and not the head and shoulders.

AMOUNT OF EXTENSION.

I have said that we have a means of making extension which permits us to use twenty or twenty-two pounds weight, and that that is the full extent to which it should be carried.

Why may we not make greater extension?

Because the ligaments of the knee-joint will not permit of greater extension without becoming painful.

If we stand in a position in which the knees are thrown back to their full extent, they soon become painful, and the position cannot be maintained without great suffering.

We usually stand with the knees bent at an angle of one or two degrees, and if straightened more they become painful.

Some patients will bear fifteen, some twenty, and some twenty-two pounds extension, which is the extreme amount that should be employed. By no means put on such an amount of extension as causes the patient pain.

PLASTER-OF-PARIS IN THE TREATMENT OF FRACTURE OF THE THIGH.

A few years ago, at the suggestion of German surgeons, who have done so much good and praiseworthy work, American surgeons began to use plaster-of-Paris in the treatment of fractures of the femur. In adopting that plan of treatment, they went a step backward instead of forward, for they adopted a method by which they could not secure any degree of extension and counter-extension, as any one can satisfy himself by watching a case throughout its treatment. It is easy of demonstration that it does not afford any extension and counter-extension. If the plaster is put on so that pressure is made on the perineum, it will cause ulceration. I have seen a case in which ulceration extended through the perineum, and up the back six or eight inches, and as deep as my hand. If you do not use the perineum to make pressure against, you must use the side of the thigh.

What kind of a surface does the thigh furnish? It is an oblique surface; there is a gradual decline from the hip to the knee, and inasmuch as the plaster will loosen within four or five days, so that you can run your hand in between it and the surface of the limb, there is no counter-extension at all; not the slightest.

The entire foot and limb may be enclosed in plaster as snug as you please, but you have no counter-extension; not a particle. While the plaster was being used in this hospital, I saw more shortening than I ever saw before in my life, and I saw two or three deaths, occasioned by the use of the plaster-of-Paris dressing.

These cases have been carefully recorded in the 5th edition of my work on Fractures.

I think we have gone several steps backwards when we use the plaster-of-Paris dressing, and I am happy to say that it is almost abolished. At the present time there is scarcely one of my colleagues in this hospital who employs it in the treatment of fractures of the thigh; there may be one, but I am sure you will not use it more than once or twice in country practice.

TREATMENT OF FRACTURE OF THE FEMUR BY MEANS OF BUCK'S EXTENSION APPARATUS.

We come next to the treatment of fracture of the thigh by means of what is known as "Buck's Extension Apparatus."

Let us look at this patient and see what kind of an apparel he is wearing.

In this particular case, as you see, no side splints have been applied to the thigh. Ordinarily they are employed. Nor is the apparatus complete in other respects, but extension and counter-extension are being made, and so the case is progressing very favorably.

The dressing in this case shows you only how extension and counter-extension should be made.

I wish to say, in connection with this case, that so long as I have treated fractures—now more than forty years—I have never met with a case in my own practice in which the fragments did not finally unite.

I have seen very many cases of non-united fracture, with other surgeons, but I do not wish to say that it has been because of improper treatment on their part; it has simply so happened that I have not had that result to deal with in my own practice.

In this case you see illustrated a suggestion made by Esmarch for the purpose of preventing rotation. I think we have a much simpler way of accomplishing the same thing; but this little device does accomplish the thing desired, and prevent rotation of the limb outwards.

The apparel, when complete, as I usually employ it, is generally known as Buck's extension. But Dr. Buck was not the first to employ the adhesive plaster, or to suggest raising the foot of the bed for the purpose of making counter-extension, and these are the most essential features of the treatment. So it is with other parts of the apparatus. We are indebted to Dr. Buck for a great deal in the treatment of fractures, but this apparatus has been so long employed in this country and so much modified that it may with more propriety be called American. In this case the apparatus is complete, and let us see what we have. *First*, we have two broad strips of adhesive plaster reaching from the knee to a few inches below the foot, and secured to the sides of the limb by means of a roller bandage. A piece of board is attached to the lower ends of the strips of plaster, and from the centre of the board a cord passes over a pulley fastened to the foot of the bedstead. In some of these cases you will notice that we have two pulleys, and in others only one.

Originally, a simple straight piece of board, having a mortise in it, as you see, and carrying a pulley, was secured in the upright position to the foot of the bedstead. The upright seen here is iron and can be adjusted and removed with ease; it is an improvement; that is, it is somewhat more convenient than the original wooden board.

The piece of board to which the adhesive straps are attached must be of sufficient length, so that when extension is made they will not impinge upon the malleoli.

The strips of adhesive plaster need not go above the knee.

Then as to the counter-extension. We have, as you see, no perineal band. We have simply raised the foot of the bedstead about four inches, and have seen that the patient rests his head, *not his shoulders*, upon a pillow. We next apply four short side-splints to the thigh; three will not answer; it is necessary to have four independent side-splints, which nearly encircle the limb. We are employing here splints constructed of felt, which is made of several thicknesses of cotton cloth. This material is one of the best that can be employed for this particular purpose as it is easily worked, is sufficiently flexible, and at the same time possesses sufficient firmness.

These side-splints are secured in position simply by encircling the limb with four or five tillets and tying them with a convenient knot. In this manner the fragments are kept in proper coaptation, and the splints can be easily removed to afford an opportunity for inspecting the limb.

In addition, you see fastened to the side of the limb and to the side of the body a long splint, about four and one-half inches in width extending nearly to the axilla, and having at the lower end a broad cross-bar to prevent its tipping.

What is the use of all this? *First*, it prevents eversion of the limb.

Second, and most important, it keeps the limb and body in a direct line.

If the fracture is pretty high up, or even in the middle third of the femur, I regard the long side-splint as the most essential part of the apparatus in securing the broken femur in an absolutely straight line.

In the case before you the fracture is nine weeks old; union is not yet perfect, but the limb is perfectly straight.

This is the model dressing for fracture of the thigh occurring in adult life, and in its present improved condition is the splint employed by the larger portion of the surgeons throughout this city.

When plaster-of-Paris was first introduced as a means to be employed in the treatment of fractures, the idea was that the splint could be kept on until the treatment was completed.

I have treated a great many cases myself in that manner, and I know what I say. It was found that scarcely ever more than two or three weeks elapsed before it became necessary to cut the splint open, remove a piece, and then bring it together and secure it with a bandage, or else remove it altogether and adjust a new one.

When a plaster splint is cut open and a piece removed, it will never properly fit the limb again, so that it becomes an almost absolute necessity to expend a prodigious amount of labor in removing the dressing entirely every two or three weeks and applying another new splint.

SHORTENING IN FRACTURE OF THE FEMUR.

In nearly all these cases treated by extension and counter-extension there is more or less shortening. That is the rule. In this case the amount of shortening is three-sixteenths of an inch. Formerly the average amount of shortening varied from three-quarters to one inch; now it is usually one-half inch, or less.

Here is a case, gentlemen, in which the plaster splint has been applied for purposes of illustration.

In order to secure extension even temporarily, the plaster splint must be carried over the foot, and then it must be extended up over the limb and through the perineum; then it is carried around the pelvis so as to embrace it completely.

If this splint remains on a week it will be loose—indeed, it is so loose now, and it was applied this morning, that the hand can be slipped in between it and the skin around the pelvis and perineum, and you can see that it affords nothing in the way of counter-extension.

This is the ordinary method of using plaster-of-Paris in the treatment of fracture of the thigh.

[Several cases were exhibited and brief allusion made to the peculiarities in each.]

Original Communications.

ON THE USE OF CERTAIN TRITURATIONS.*

By HENRY G. PIFFARD, M.D.,

NEW YORK.

The high estimation in which triturations are held by homœopaths induced the writer some time since to carefully consider the relative advantages and disadvantages which they possess, in comparison with other pharmaceutical preparations in which the medicine is dispensed in a solid form. In the U. S. Pharmacopœia the number of triturations is limited, and includes only the Pulvis aloës et canellæ, the Pulv. aromaticus, the Pulvis jalapæ comp., the Pulv. rhei comp., the Pulv. ipecacuanhæ comp., and Hydrargyrum cum cretâ. Concerning the first four, the Pharmacopœia directs that their ingredients shall be rubbed "together until they are thoroughly mixed." Of the Pulv. ipecac. co., or Dover's powder, it says that the ingredients shall be rubbed "together into a very fine powder." Lastly, the mercury and chalk are to be rubbed "together until the globules cease to be visible." In the former instances the effort is simply to obtain powders of uniform appearance, but in the last two undoubtedly the intention is to obtain the drugs in a state of minute subdivision, and these alone may properly be considered as falling under the designation of triturations. The homœopaths, on the other hand, prepare a considerable number of medicinal substances in this manner, and it becomes a question of interest whether or not it would be advantageous to extend our own list in this direction.

The homœopaths prepare their triturations by two different formulæ, known respectively as the *decimal* and *centesimal* scales. In the first case one part of the drug is triturated with nine parts of milk-sugar, and the result designated 1st decimal, or 1^x. In the second case, one part of the drug is rubbed with ninety-nine of sugar and is called 1st centesimal, or 1^c. One part of one of these mixtures is again triturated with nine or ninety-nine of sugar, and the result designated as 2^x or 2^c as the case may be, and so on *ad infinitum*. In each case the process of trituration is carried on for an hour, and to a considerable extent is effected by the aid of suitable machinery, the object being to subdivide the drug as thoroughly as possible. As many of these triturations contain, in a convenient bulk, the doses that we commonly prescribe, they at once become eligible preparations for our use, provided they are as convenient to dispense and as uniform and certain in their effects as the preparations that we ordinarily employ. If they excel in these respects, they should certainly be brought into more general use, as it is our duty and privilege, as regular physicians, to avail ourselves of every therapeutical agent and of every pharmaceutical process that may be better than those heretofore employed. In order to settle in our own mind the relative value of triturations, we have, during the past year, carefully investigated a few of them, more particularly those of mercury, arsenic, and iron.

The first chosen for examination was the 1^x trituration of *mercurius vivus*, and it was compared very naturally with our own analogous preparation, the *hydrarg. c. cretâ*. Examined under the microscope the mercury in the former was found to be in a state of extremely minute subdivision, the majority of the separate globules being smaller than red blood-corpuscles, and many of them so small as to be endowed with Brunonian movement.

Five samples of *hydrarg. c. cretâ*, obtained from Broadway drug stores, were then examined. These were found to vary greatly in their gross appearances, and likewise under the microscope. In some there appeared to be a notably larger proporion of mercury than in others, and in all of them the metallic globules were very much larger in size (average) than those in the *merc. viv.*

Now when we administer mercury for its specific effect upon the blood or upon particular organs, the first essential is that it shall be absorbed. If the drug is in solution there is of course little difficulty about the matter, but if given in a solid form, it must either be capable of solution by the fluids of the stomach, or else its particles must be sufficiently minute to permit of their direct absorption as solids. The fact of the absorption of solids, at one time deemed impossible, has now been so thoroughly demonstrated, and especially as regards mercury, that we are prepared to understand how minute subdivision will facilitate absorption, when larger particles would pass the bowels without effect, or simply produce local effects, varying with the nature of the drug employed. We should therefore expect that, a given quantity of drug being used, the promptness of its specific effects would vary inversely with the size of the particles of which it is composed. If we submit this rational conclusion to the test of clinical experience in the cases of *hydrarg. c. cretâ* and *mercur. viv.* we will find it easily verifiable. The latter, given in doses containing the same amount of mercury as the former, will produce the more prompt and decided effects.

Turning from metallic mercury to its salts, we find an inviting field for exploration. The mercurous preparations are almost invariably given in the solid state, while the mercuric are administered both in the solid form and in solution.

We are all of us aware that a single grain of calomel well rubbed up with sugar and given in, say, twenty divided but frequently repeated doses, will often produce the specific effects of the drug, while a single dose of twenty grains will as frequently fail to do so. Passing calomel, then, we come to another mercurous preparation, namely the protoiodide. This salt, in its condition of ordinary medicinal purity, was found, upon microscopical examination, to consist of comparatively large-sized masses composed of apparently smaller granules. Moderate pressure on the covering glass was sufficient to disintegrate these masses and to resolve them into much smaller particles, not exhibiting crystalline structure, and averaging about the size of red blood-corpuscles, or a little less. A gelatine-coated protoiodide pill was found to contain the drug in the same fine granular condition. Sugar-coated pills of French and American manufacture were also examined, and the mercury found to be in quite small particles. In all of these specimens the drug was in a very minute state of subdivision, and the greater part of it doubtless capable of direct absorption without previous solution. This is of importance when we consider that this salt is but sparingly soluble.

The first decimal (1^x) milk-sugar trituration of the protoiodide was next examined. In this the salt appeared to the naked eye to be very uniformly distributed throughout the powder, and upon microscopical examination was found to consist of extremely minute particles, of decidedly smaller size than in the previously examined specimens. It is to be expected, therefore, that the protoiodide trituration will prove, *ceteris paribus*, more active than the pill, and such we have found it.

* Read before the N. Y. Academy of Medicine, Nov. 1, 1877.

Turning now to the mercuric preparations, we find the bichloride and biniodide most in use. For obvious reasons, triturations of the former were not examined microscopically. Gelatine- and sugar-coated pills of the biniodide, however, were carefully investigated. In the gelatine-coated pills we found the salt displayed as beautifully perfect crystals of varying size. In the sugar-coated preparations the drug was in small granular masses, held together by some not very soluble substance. In the first centesimal (1^c) trituration the biniodide was apparently well distributed through the powder, and upon examination was found in particles of very much smaller average size than in any of the other preparations. The biniodide of mercury is exceedingly insoluble, and there can be no question but that its absorption is therefore very much facilitated by minute subdivision. It is moreover a powerful irritant, and one would naturally expect that particles too large for direct absorption, or slow of solution, would be apt to produce more or less gastric distress before they are finally disposed of. That the iodides of mercury frequently produce gastralgia and diarrhœa is well known, and personally we believe that this is due to the local irritation produced by them, and not to any elective action of the drug. Since we have used the triturations, however, in preference to the ordinary pills, patients more rarely complain of disagreeable sensations. We have further been enabled to materially reduce the size of the dose, in order to obtain the desired effect. In other words, a larger proportion of the drug is utilized for specific purposes, while but a small amount remains to give rise to local irritation.

Besides those already mentioned, we have employed with equal satisfaction triturations of arsenious acid, the iodide and bromide of arsenic, ferrum redactum, aloes, sulphide of calcium, iodide of sulphur, and others, and are prepared to assert, without hesitation, that they are more prompt and reliable than pills, as ordinarily prepared, and that in many cases the medicinal effect being the same, their action is milder and less disagreeable to the patient.

Besides mineral and metallic, many vegetable substances might with advantage be kept in this form, as aconitine, atropine, digitaline, picrotoxin, strychnine, etc., in the 2^x, and morphine, codeine, elaterium, pilocarpine, etc., in the 1^x trituration. In this connection the greater facility for accurate dosage is not to be overlooked.

At present, if but a few doses of one of the more powerful alkaloids is required, a large number of doses must be prescribed in order to secure any approach to accuracy in dispensing. With triturations this difficulty is obviated. They also afford convenient means for the extemporaneous preparation of hypodermic solutions of atropine, strychnine, etc., at times when the services of an apothecary cannot be readily obtained. To the city practitioner, at night, a few triturations carried in a pocket-case would often enable him to meet emergencies without the hour or half hour's delay in having a prescription prepared. To the country practitioner they are invaluable.

In conclusion, while willing to give due credit to the homœopaths for their development (though not for the invention) of this class of pharmaceutical preparations, we see no good reason why they should any longer enjoy the monopoly of their use.

The triturations referred to above were made by Boericke & Tafel, and some of them I have had compressed into convenient doses by Wyeth & Bro., of Philadelphia.

RETENTION OF PLACENTA FROM ATMOSPHERIC PRESSURE.

Reported by W. E. FOREST, M.D.,

RESIDENT PHYSICIAN, LYING-IN ASYLUM.

Dr. A. Luton has communicated to the Medical Society of Reims a case of retention of the placenta due to atmospheric pressure. Recently a case occurred in my practice which, owing to a peculiar condition of the abdomen of the mother, offered unusual facility for investigating the truth of his theory.

Jane K., age thirty-seven; mother of four children; labors usually easy; taken in labor at 3 A.M., Oct. 26th. Made an examination at 6 A.M. Os dilated to the size of a silver dollar. Membranes unruptured. Head presenting in the R. O. P. position.

The labor progressed slowly through the day.

At 5½ P.M. found the head in R. O. P. position, and making no progress. Os fully dilated and head well advanced. Administered chloroform, Dr. E. L. Partridge assisting, and delivered with the forceps, the head rotating from R. O. P. position to R. O. A.

After the delivery of the child I examined the abdomen of the mother and found that during the labor the recti muscles had separated in the median line for a distance of five inches, and extending from the ensiform cartilage to the pubes, so that we had, as it were, a door opening into the abdominal cavity, the abdomen being covered only by loose integument.

Pressing the loose folds of integument before my hand, I found that I could pass the hand down behind the uterus into the pelvis so as to take the body of the uterus between the hands, and could distinctly distinguish the bundles of muscular fibres making up the outer muscular layer of the uterus. The abdominal aorta could be compressed between the fingers, and, indeed, almost every abdominal organ could be felt *in situ*. This condition afforded an excellent opportunity for examining the uterus during the expulsion of the placenta. Fifteen minutes after the child was born I made traction upon the cord and firm pressure upon the fundus uteri, after Credé's method, to assist in the expulsion of the placenta. The uterus was at this time quite firmly contracted.

The placenta resisted all attempts to extract it, and I could distinctly feel the anterior wall of the uterus sink in at every pull made upon the cord. Either the placenta was adherent to the wall of the uterus, or possibly the placenta, with the cord attached to its centre, was acting as a "sucker," similar to the toy made of a round piece of wet leather with a string attached to its centre, which small boys amuse themselves with.

In either case there was danger of causing inversion of the uterus, if traction was made upon the cord. I requested Dr. Partridge to place his hand upon the depressed wall of the uterus (the uterus was separated from his hand only by the thickness of the integument). Then, holding the cord firmly in one hand, I passed the other up to the os uteri, and found the centre of the placenta presenting at the external os, the placenta being in the shape of an inverted umbrella. I inserted two fingers past the anterior edge of the placenta, without making any traction. As I did this, Dr. Partridge exclaimed that the sunken wall of the uterus had resumed its natural shape, and an instant later the placenta, almost by its own weight, came down into the vagina, and was delivered.

This manœuvre of passing the fingers between the edge of the placenta and the uterine wall, allowed the

air to enter the uterus and thus relieved the atmospheric pressure upon the fœtal surface of the placenta.

The care with which this experiment was conducted, and the exceptional opportunity afforded for making an accurate examination of the uterus, goes far to make this case almost a demonstration of the theory that retention of the placenta may sometimes be due to atmospheric pressure.

This cause for retention of the placenta I have never seen mentioned in any obstetrical work; and yet I am inclined to think it a frequent cause. Nearly every obstetrician can recall cases where, after strong traction on the cord has failed to bring down the placenta, the hooking the finger over the edge of the placenta has brought it down almost without the expenditure of force. The common explanation of this condition is that it is necessary to "unbutton the placenta."

Now, this plausible illustration misleads one as to the real state of the case. The soft, dilatable os uteri resembles not at all the slit-like opening of a button-hole; nor does the compressible cone-shaped placenta (cone-shaped when traction is made upon the cord) resemble a button. We should expect, too, that the os uteri, which has just given passage to the head of the child, measuring 3¼ inches in its shortest diameter, would not obstruct seriously the passage of the placenta, which I have found can usually be drawn through a ring 2½ inches in diameter. The true explanation may be that in these cases of retention of the placenta, the uterine sinuses do not pour out sufficient blood to fill up the uterus behind the placenta, and hence atmospheric pressure upon the fœtal surface of the placenta prevents its expulsion or extraction.

No. 170 Spring Street, New York.

Reports of Hospitals.

THE TREATMENT OF ACUTE RHEUMATISM IN THE HOSPITALS OF CHICAGO.

Cook County Hospital.

In this hospital, during the rheumatic season last spring, there were treated quite a variety of cases of acute rheumatism. The treatment, except in the cases with complications, was generally that with salicylic acid. The acid was rarely, if at all, given in an uncombined state. One combination was that with the liquor of the acetate of ammonia, glycerine and water; with each 15 grains of the acid there being one drachm of glycerine and twice as much of the liquor. The combination prescribed by Prof. Lyman was made with a solution of the bicarbonate of soda—this drug being added until a perfect solution is made. Each dose, representing 10 grs. of the acid, contained also 4 grs. of citric acid. The usual dose was 10 grs., and this was repeated every hour in a few cases; the more common interval, however, was 2, 3, or 4 hours. Occasionally a few doses of 20 grs. each were administered, and in a few cases 5 grs., and even less, was given at each dose. There was little or no complaint of irritation of the stomach from the medicine. There were eighteen uncomplicated cases for which the salicylic acid was the chief treatment—in a few of these it was acid the sole treatment. In sixteen of these cases the average time of the attack before this treatment was begun was 9½ days. (Of course it was begun as soon as the cases were admitted.) Of the eighteen cases the average time in hospital after the acid was begun was 11⅝ days, and the average length of the attack in these cases was 22 days 5¼ hours. The time from the beginning of the administration of the acid to the appearance of a marked abatement in the articular inflammation, is recorded in only nine cases, and the average was 2 days 18⅜ hours. The average quantity of the acid given each patient each day was about 85 grains.

The following table expresses more in detail the facts in each case. It is made from the records:

Cases.	Length of sickness before acid was given.	Time after acid began, before disc. charge from hospital.	Dose and Intervals.	Time of use of the medicine before pain abated.	Whole length of sickness.	
Man,	14 days	8 days	10 grs. 4 times daily	2 days	22 days	Cured.
"	"	16 "	"	"	16 "	"
Boy,	4	6	5 grs. every hour	2 "	11 "	"
4rd,	13	21	10 gr. doses		31 "	"
Man,	38	10	10 grs. every 4 hours		10 "	Complicated with abscess.
Woman,	22	30	3 times daily		37 "	Cured.
Man,	18	"	"			
Man,	23	6	every hour	3 "	9 "	Improved only.
Woman,	20	19	every 2 hours		33 "	Cured.
Man,	43	40	4 times daily	8 "	54 "	"
Man,	27	8	2½ grs. every 3 hours		32 "	"
Man.	46	20	10 grs. 3 times daily		34 "	"
Man,	35	12	every 3 hours	1 "	33 "	"
Woman,	42	37	10 " 4 "		45 "	Relapse 2 days after admission, relief in 5 days.
Man,	21	6	10	2 "	13 "	
Man,	27	6	10	"	8 "	Heart complication.
Man,	24	49	"	16 "	55 "	"
Man,	19	3	"	3 "	9 "	"
Man,	35	76	10	5 "	83 "	Complications — not cardiac.
Man,	35	6+	10	1 "	12 "	
Man,	34	8	10	1 "	11 "	
Man,	35	9	10	2 "	12 "	
Man.	31		2½		16 "	

It is highly probable that in the hurry of hospital work the exact date of an abatement in the severity of the symptoms in some of these cases may not have been recorded. The judgment of the hospital attendants is that such abatement occurs usually in a much shorter time than that stated in the table as the average.

St. Joseph's Hospital.

Here there were admitted during the spring and early summer—in the service of Prof. C. T. Parkes—five cases of acute rheumatism. Four received the salicylic acid treatment. The medicine was administered in a pure state, and was found to disagree with the stomach, after a few doses had been given, in two cases. In these it was soon discontinued and an alkaline treatment with opium given in its stead. In two cases a very marked improvement—almost a cure—was manifested in two and three days respectively, by doses of 10 grs. every 2 hours and 5 grs. every 3 hours respectively. In these cases the acid was well borne by the stomach. In both the cases in which the acid was found to disagree, the doses were of 10 gr. each, and were repeated every 2 hours.

St. Luke's Hospital.

Dr. M. O. Heydock, who is in charge of the medical wards of this hospital, has not made any careful test of the effects of the salicylic acid in acute rheumatism, *i.e.*, unaccompanied by other medication. He has ad-

ministered the acid to many patients, but has generally combined with it not only a thorough alkaline treatment, but has often applied blisters as well. The last-mentioned measure of treatment has been unusually successful in the hands of this practitioner, not only in the pains and inflammation of rheumatism, but in many other painful and neuralgic affections. Dr. H. has not lost confidence in the old treatment of rheumatism with guaiacum and colchicum, and iodide of potassium—with a liberal administration of opium for the quieting of pain.

MERCY HOSPITAL.

In this hospital it has been the practice for many months to administer salicylic acid to cases of acute rheumatism, epecially if, when admitted, they are found to have a high fever and much pain. The average dose of the acid is 10 grs., but 15 gr. doses have been frequently given. The interval between doses is longer than is usual in the other hospitals of the city, four hours being the average interval. Only occasionally has the medicine been given more frequently. The acid is usually combined with some alkali, a favorite being borax, about 10 grs. being combined with each dose of the salicylic acid.

Within forty-eight hours after the acid treatment is begun, usually some other medicament is added, which would make it perhaps difficult to say just what the effect of the acid might be. For example, Prof. Merriman usually administers to his patients large doses of bicarbonate of potassium, with, perhaps, iodide of potassium and colchicum in liberal quantities, while the salicylic acid is being taken. Prof. Davis with his patients is likely to add to the salicylic acid iodide of potassium, tincture of cimicifuga, and the tincture or the fluid extract of stramonium. The two last-named drugs have been peculiarly useful in his hands.

It is the opinion of the staff of this hospital that salicylic acid is capable, in the doses given, of lessening fever and pain and tenderness in acute rheumatism in the majority of cases, and that within two days after its use is begun; but their opinion is as clear and positive that it is incapable of such success in every case.

There is no complaint that the acid disagrees with the stomach when given in the combinations here used. One form in which the acid is administered—not mentioned above—is in an uncombined state mixed with the extract of malt, several drachms of the extract being used to disguise each dose of acid. This expedient is very highly spoken of.

In private practice in Chicago the powdered salicylate of soda is coming into use, and is greatly liked because of its blandness to the tongue and stomach, but it has not found its way into the hospitals to any extent as yet.

CHICAGO, Nov. 2, 1877.

Progress of Medical Science.

CARBOLIZED CATGUT LIGATURES AND THEIR EFFECT UPON THE HUMAN ARTERIES.—At a recent meeting of the Clinical Society of London, Mr. Bryant instanced some cases from his own practice, which, with drawings and preparations, are calculated to aid in solving the question whether catgut is an appliance that should merit general use. His first preparation was taken from a patient in Guy's Hospital, who had been suffering from aneurism of the right femoral and ulcerative endocarditis. A catgut ligature was applied to the external iliac artery, but death occurred from the heart affection fourteen hours subsequently. The inner and middle coats of the artery were found, on post-mortem examination, to be completely divided by the ligature, and the external coat partly. Below and above the ligature were clots, and the catgut was intact. The second preparation was taken from the right common carotid, to which a ligature had been applied twelve days before death. In this case the artery had been completely severed. There was a clot above and below the point of separation, but it was not firmly adherent. The ligature had disappeared. In the third preparation the right subclavian had been tied with catgut thirteen days before death. The man had died of lung trouble. In this case there was a firm clot in the vessel for half an inch above, and for the same distance below the ligature. All the coats had been divided and afterwards repaired; the knot of the ligature was all that remained. In the fourth preparation the common femoral had been tied nineteen days before death. Death ensued from gangrene. All the coats of the artery had been divided and repaired, and good clots existed above and below the ligature, the knot of which, with perhaps some of its loop, remained. In all these cases the inner and middle coats of the vessels had been probably divided at the time of operation, as would be done by any permanent ligature, the external coat afterwards by an ulcerative process, though in the first case this was partially accomplished in fourteen hours. He has operated in a number of other cases, and has reached the conclusion that the ligature at first divided the middle and inner coats, and then excited ulcerative action in the external coat. "If, therefore," said Mr. Bryant, "I cannot endorse what the distinguished introducer of the catgut ligature claimed for it in 1869," that by applying a ligature of animal tissue antiseptically upon an artery, whether tightly or gently, we virtually surround it with a ring of living tissue, and strengthen the vessel where we obstruct it, "yet I may express my belief that as the loop of the catgut ligature dissolves within an uncertain period, and there is not of necessity any sloughing or ulceration of the whole coat of the constricted artery, as must ensue where a more permanent material is employed, we have in the carbolized catgut the best ligature at our disposal." Mr. Maunder stated that in his personal experience the use of catgut in the continuity of vessels had been attended with success, but he knew that with others the case had been different. As to the matter of accidents following the catgut, he stated that it had frequently dissolved in twenty-four hours, and fatal hemorrhage had taken place. He was not in favor of this ligature in the continuity of vessels and should no longer employ it. Mr. Barwell stated that he had employed the ligature in five cases, and no accident had resulted in any. It was advisable not to draw the ligature too tight, for the more tightly it was drawn, the more rapidly it was dissolved.

SYME'S AMPUTATION AS THE MOST ADVANTAGEOUS AT THE ANKLE-JOINT.—Dr. Hudson, whose name has long been associated with various mechanical appliances for supplying artificial supports, to relieve deformities, or compensate for losses of limbs, has written an article which will supply much useful information to those who may be in doubt as to the special desirability of this or that operation at the ankle-joint. The writer thinks that the results of Syme's operation, as performed by scientific and expert surgeons during the past twenty-five years, have given conclusive evidence of its special advantages to the patient, and demonstrates its superiority over every other amputation of the foot or leg. It is thought to be the "least disabling,

found with a moderate degree of contraction, usually the least incapacitating, and with scientific prothetic apparatus, the patient scarcely realizes any loss of limb. The end of the stump is painless and an enduring basis of support, reliable for any degree of pressure and service, and equivalent in condition and functions to the heel of the unamputated foot." The writer also adds that the merits of a well-performed Syme's amputation cannot be exaggerated, and claims that he is able to sustain his position by tabulated records of two hundred cases, of which he has notes. It is thought that no amputation of the leg or foot should be substituted for the Syme, except that of Lisfranc. No improvement on the Syme method can be made by section of the cancellated structure of the ends of the tibia, or of the calcaneum. Pirigoff's method is preferable to leg amputation, but when any considerable part of the calcaneum has been annexed, the form has been uncouth, and the basis of support poor and painful. Some have resulted in a false joint and retraction of the appended part; others in necrosis of the tibia above the annexed portion of the os calcis. The increased length of stump in such cases should not be urged as an advantage *to the poor man*. If in his case the bucket arrangement alone is available, an elastic wool felt pad half or five-eighths of an inch thick in the bucket will be amply sufficient to offset any advantages afforded by the appended calcaneum. In fine, a comparison between the Pirigoff, Chopart, Quimby's so-called medification, and a leg amputation with periosteal flaps, the tibio-tarsal, or Syme's, is thought to be *the most useful and worthy*. —*Louisville Med. News*, Nov. 3, 1877.

Injury Resulting from Electrical Treatment. —Dr. Lincoln reports some interesting cases in which the application of electricity gave rise to unpleasant consequences. In a case of rheumatic arthritis, the usual galvanic treatment at first relieved the pain, and imparted a sense of vigor to the body. After the first two or three weeks, however, the benefit became less marked, and soon an acute attack, or exacerbation of the disease set in, which Dr. Lincoln thinks might reasonably be attributed to the treatment. In a case of spinal exhaustion, galvanization induced restlessness and sleeplessness, from which the patient had never suffered previously, and which continued to trouble him as long as he received electrical treatment, without being balanced by any good results whatever. A case of muscular rheumatism was very rapidly improved, but this improvement was followed by severe dyspepsia, and great prostration, cured in a short time by change of air. A lady suffering from locomotor ataxia received direct relief from each application. This relief lasted twenty-four hours, but was followed the next day by an exaggeration of the symptoms; she was worse at the end than at the beginning of the treatment. A case of muscular pain and weakness of the legs was always rendered worse the day after the application of the electricity. The Doctor then mentions some other undesirable effects, which were, however, transitory in their nature. In conclusion he says: "As far as I am able to judge, the harm that may be done by electricity mostly arises from over-stimulation, that is, exhaustion of the spinal, or ganglionic systems.—*Boston Medical and Surgical Jour.*, October 25.

Congenital Phimosis.—Foremost amongst the unpleasant effects of congenital phimosis, Dr. Pooley places incontinence of urine. Nocturnal enuresis in boys he regards as being almost always due to this cause. An extreme degree of preputial contraction is not necessary to produce this result, for it is frequently complicated by adhesions between the foreskin and glands, and by the presence of hardened smegma behind the corona. The exact connection between the cause and effect is not explained, but reflex action is suggested. The irritation of the secretion and urine retained behind the foreskin is often sufficient to give rise to a balanitis, with such a copious discharge of pus as to simulate clap. This inflammation, Prof. Pooley says, may extend down the urethra to the bladder, and may give rise to a veritable cystitis, presenting all the symptoms of stone in the bladder, and only distinguishable from that affection by sounding. The remedy is circumcision, an operation which, in his experience, is always followed by good results. In operating he recommends the use of the clamp in removing the tegumentary layer of the prepuce, then turning back the mucus layer and attaching it to the cut edge of the skin by numerous fine black silk sutures. This inner layer may require division on a director, and if there are any bands of adhesion they should be broken up. The wound should be dressed with a strip of oiled lint, and a cold-water bandage. In urinating, the child should lean well forward, to prevent the dribbling of the urine over the wound.—*A Series of American Clinical Lectures*, No. 21.

Operative Treatment of Internal Piles.—In a paper published in the *Edinburgh Medical Journal* for June, 1877, Mr. Annandale discusses the comparative advantage of the clamp and cautery, and the ligature in the operation for internal piles. Mr. Annandale prefers the clamp and cautery, and states the advantages of this method over the use of the ligature, as follows:

1. By means of the clamp and cautery the piles are at once removed, and do not remain in the rectum as dead and putrid masses.

2. The irritation and pain are not so severe or so prolonged as in the operation by ligature.

3. The patient's confinement to bed and to the house is much shorter.

4. The resulting sores heal more quickly, and are attended with less risk of suppuration, and its attendant local and general dangers.

Fracture at the Superior Epiphysis of the Humerus.—In the *New York Medical Journal* for November, Dr. Richmond reports a case of fracture of the humerus at the superior epiphyseal junction, treated according to the method recommended by Dr. E. M. Moore, of Rochester. Dr. Moore's plan is "to carry the arm forward and upward while moderately extended; the upper fragment rolls upward in the glenoid cavity until arrested by the capsular ligament, when the lower fragment slips into its normal relation with the former. The arm may be brought down to the side in a state of moderate extension, and easily held in position by a Livinburn extension splint." Dr. Richmond's case occurred in a young man, nineteen years old, who fell backward a distance of six feet. In performing the manipulations, a slight or "muffled" crepitus was elicited. After reduction there was no tendency of the fragments to become displaced. An outside splint was used, and a strip of adhesive plaster applied to the inside of the arm, carried below elbow, around lower extremity of splint, and thence through a hole in the splint to the outside of the arm. This gave the extension. Counter-extension was made by means of an axillary band fastened to the upper extremity of splint, which extended somewhat above the shoulder. The whole was then secured by a bandage. The treatment lasted five weeks, and the result was *perfect*.

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PROFESSIONAL SECRETS IN COURT.

SINCE the editorial of last week was written there has been more discussion in the secular papers concerning the revealing of professional secrets in court. The subject is such a broad one, and admits of being viewed in so many lights, we are not surprised that it has been made the most of by our daily contemporaries. A great deal that has been said upon the strictly professional aspects of the case has been absurd, but nevertheless the general sentiment which has prevailed that professional secrets should never be divulged is eminently proper. As we have remarked on a previous occasion, there has never been any doubt among physicians regarding this point. As a matter of abstract principle it has been defended on several occasions in defiance of the rulings of courts, and medical men have been accordingly sent to prison rather than violate their professional obligations to their patients, or act contrary to the dictates of their consciences. It is one of the maxims which is early inculcated in the minds of every properly qualified medical man, and is universally conceded to be one of the very necessary reasons why the Hippocratic oath should be administered to every graduate. Under these circumstances, to receive a rebuke from the secular press for ostensibly violating this most sacred of all obligations is, if at all merited, in the highest degree humiliating. We are happy to say, however, that as far as the medical witnesses on the recent Vanderbilt will case are concerned there have been no real grounds for complaint, but the discussion to which their testimony has given rise has been of value, not only to the profession, but to the public at large. Far from damaging the profession in the eyes of the people, it has tended to elevate it to its true dignity, by proving that the physician should be and is the trusted recipient of the most sacred of secrets.

Public opinion is now more than ever in favor of sustaining the "privileges" of the medical witness, and of giving him a wider latitude for the exercise of his professional discretion. It will always be expected after this that the medical witness shall object on the slightest pretence, and if the objection is overruled, and he is compelled to testify, the *onus* will lie upon the court. In its legal aspects, then, this matter appears to be quite well understood. From a strictly professional standpoint the case is somewhat different, and it is in their attempt to discuss the subject from such a standpoint that the daily papers have committed many blunders. Their apparent inability to separate what was purely privileged professional testimony from what was not, was the principal cause for all the misunderstanding of responsibilities and the misconception of obligations. Pure science knows no sex, condition, age (and we were about to say color), but such science can only be understood and appreciated by scientific men. This is particularly the case with scientific medicine. Medical men, by their training and associations, are accustomed to look upon some things as very commonplace which to outsiders may be startling, if not disgusting. The description of autopsies as given in the Pathological Society, would hardly answer for the readers of a secular journal, and yet post-mortem examinations are necessary to obtain the necessary facts in a given case. In the Vanderbilt autopsy there was nothing done that was not necessary to have done under the circumstances. It was a plain, straightforward examination of all the important organs of the body. We have already proved that the facts as such were not privileged, and should not have been withheld from one party in the suit more than the other. The Surrogate decided that such facts were not, under the circumstances of the case, the exclusive property of the parties who paid for obtaining them. But it is not necessary here to go over our former ground of argument. What we desire to make clear is that it was the secular press that did wrong in spreading before the public testimony, the knowledge of which should be restricted only to the parties directly concerned. The inconsistency of condemning the character of the testimony, and at the same time of publishing it broadcast, is too apparent for reference. We do not expect that the public shall have any sympathy with strictly professional work. The people can never understand how cases can be curious, interesting, or rare, which to them are repulsive, disgusting, and obscene. The profession is of the opinion that the public has nothing to do with strictly professional matters, and hence has a right to protest against the course of the daily press, not only in the Will case in question, but in every other of a similar nature.

The difference between the public and the profession on these matters is simply this: with the first the interest centres in the individual; with the latter, in the abstract facts of the case. The autopsy or medical history of the commonest pauper, in a medical

sense, would be as interesting as that of Mr. Vanderbilt. But because the latter happened to be the subject of post-mortem examination it was considered perfectly proper by the daily papers to present a full account of the said autopsy, and then afterwards virtually criticise the doctors for making it.

When a prima-donna died recently, the public, because she happened to be a celebrated singer, at once became interested in the size of a uterine tumor which was found on post-mortem. We are sorry to say that an English medical journal was the first to start this very objectionable piece of intelligence. Would it not have been equally interesting to have reported the case without the name? But here is one of the main points in which the public and the profession differ.

Another question comes up in this connection, the answering of which is alike interesting to physician and attorney, and that has reference to what may and may not be privileged testimony. In this State the law provides that no physician shall be allowed to disclose any information which he acquired while attending a patient, and which information is necessary to enable him to prescribe for that patient, as a physician, or to act for him as a surgeon. In Arkansas, California, Indiana, Michigan, Iowa, Missouri, Minnesota, and Wisconsin substantially the same law prevails. These laws apply to every examination of a medical man, even as an ordinary witness, and no exception is taken unless by consent of the party confessing. It is proper to bear in mind in this connection that in this State, at least, the provisions of the law are "not applicable to the physician of a deceased person in a testamentary cause concerning the probate of the will of such decedent" (*Allen v. Public Administrator*, 1 Bradford, Surrogate's Reports, 521). The law, then, is quite explicit on this point, and gives the physician no choice in the matter. Although the Hippocratic oath leaves it discretionary with the physician as to what he may divulge,* it is eminently just and proper that the law should sharply define the line. While it might be ordinarily safe to trust to the witness's judgment, in a given case, as to what should or should "not be spoken of abroad," as to what might or might not damage his patient, exceptions might occasionally arise in which there might be a serious error of judgment. It is well to understand that "the confession, in order to be protected against disclosure, must relate exclusively to such matters as are indispensable to the professional treatment of the patient. Communications made outside of this sphere acquire no immunity from having been entrusted to physicians, for at common law such are not deemed privileged, and wherever so recognized they are the creatures of statutory enactment." (Ordronaux's Jurisprudence of Medicine, and Grlf. on Evidence, § 248.)

* The clause bearing on the point reads, "Whatever in connection with my professional practice, or not in connection with it, I see or hear in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret."—*Hippocratic Oath.*

Reviews and Notices of Books.

TRANSACTIONS OF THE MEDICAL SOCIETY OF NEW JERSEY. 1877.

Two essays of practical import, and a valuable report on the water supply of Essex County, adorn the Transactions, 1877, of the Medical Society of New Jersey, notice of which has already appeared in these columns. That of Dr. E. J. Marsh, of Paterson—"Hay Fever, or Pollen Poisoning"—deals pretty exhaustively with the literature of the subject, from Bostock to the recent experiments of Dr. Wyman, and then recounts a series of experiments by the writer himself, which appear to furnish pretty conclusive evidence of the correctness of Blackley's conclusion from experiments with flowering plants, grasses, and cereals, that the irritation is caused by pollen grains floating in the air. The action of the pollen of the order Graminaceæ was, on the whole, Blackley found, more distinct and well marked than that of other orders; but the quantity and irritating property both varied with variations of humidity, temperature, and other circumstances. Wyman's striking experiment with the pollen of Roman wormwood is cited; and then Dr. Marsh relates his own experiments with, and observations upon, the pollen of *ambrosia trifolia* and other varieties, with a brilliant series of microscopic observations as to the amount of pollen floating in the atmosphere. Having discussed these experimental data, Dr. Marsh concludes that hay fever is a proper pollen poisoning, and hence a local disease, not a constitutional one. As respects treatment, he has nothing new to offer.

The essay on the "Care of the Skin as a Means of Prevention and Cure of Disease," by Dr. A. N. Rogers, of Paterson; and the report by Dr. Lott Southard, on the "Essex Water Supply" (Drainage and Sewerage of the City of Newark and their Relation to the Causation of Diseases), are both papers of great scientific value and interest. The latter, especially, is one that should be carefully read by the public as well as by medical men, although many of its statements have only a local application. Taking Smith's estimate of the annual excreta as 630 pounds per capita, the amount of matter that the sewerage system of a large city has to carry off may be readily calculated. Krepp states the annual amount of excreta to the individual at 799$\frac{35}{100}$ pounds—an average arrived at by comparing the statements of Liebig, Laws, Hoffman, Wilt, Way, Boussingault, Saussure, and others; but one that is probably a little in excess of the actual fact. The comparative analysis of well and Passaic river water, made by Prof. Wurtz, and the experiments of Dr. Frankland, showing the futility of filtering sewage-contaminated water, are cited and discussed at length in their relations to public health, and to the 33 per cent. zymotic mortality of Newark. It is conceded, in fact, by scientific men everywhere, that oxidation, accelerated by constant motion, is the only process by which sewage can be eliminated, and that even under such conditions running water, once contaminated with sewage, retains traces of the contamination after flowing for from 50 to 60 miles.

The Medical Society of New Jersey has also instituted an investigation as to the influence of maternal impressions upon fœtal development, but no conclu-

sive facts have yet been contributed by the county reporters, although one or two curious and interesting cases have been reported.

LECTURES ON FEVERS. By ALFRED L. LOOMIS, A.M., M.D., Professor of Pathology and Practical Medicine in the Medical Department of the University of the City of New York; Visiting Physician to Bellevue Hospital, to the Mt. Sinai Hospital; Consulting Physician to the Charity Hospital; Late Visiting Physician to the Blackwell's Island Fever Hospital, etc., etc., etc. New York: William Wood & Company, 27 Great Jones Street. 1877.

THIS is the second volume of a series which has been promised by an eminent teacher in medicine. It comes to us as did the volume on "Diseases of the Respiratory Organs, Heart, and Kidneys," in the form of lectures. Of these there are thirty, and to the volume proper, a bibliography is appended. At the outset, we will direct attention to what we regard as commendable features of this book as a volume of lectures. The subjects have been studied systematically. We have, first, a brief introduction, and then the lecturer proceeds to give the morbid anatomy, the etiology, the symptoms, the differential diagnosis, the prognosis, and the treatment of the disease under consideration in the unvarying order here indicated. The value of systematic teaching cannot be overestimated. It disciplines the student to pursue his work after an approved and definite plan, thereby enabling him to know when his task has been thoroughly and completely performed. There are, unfortunately, both medical students and medical teachers, who travel a zigzag course in their studies and teachings all through life, and, although they may accomplish much, they do so at an immense sacrifice of time and energy. Such persons are not amenable to discipline in any form, but even they are usually willing to admit that it is with unalloyed pleasure they listen to, or read concise statements, systematically arranged.

Each class of fevers has been prefaced by a clear-cut reference to the theories regarding their nature. The author, however, has not entered upon an extended discussion of these theories. Perhaps he has been a little too wary in this respect. The error, however, if any has been committed in this direction, has been on the side of safety. Evidently, it has been his intention to give direct expression to the facts concerning each class of fevers, and the individual diseases belonging to that class, and then to leave the student and the reader to exercise their own judgment with reference to certain mooted points.

Those questions, both as regards theories and the phenomena of disease, which have been substantiated as facts, the lecturer does not hesitate to endorse by the use of his apparently favorite word "unquestionably." Those points which are still questionable, are for the most part passed without comment, the author doubtless believing it to be far better that the student should investigate for himself than that he should be loaded down with fine spun details which only tend to confuse. It might be urged by way of criticism, and with a certain degree of propriety, that the various subjects have not been spoken of with sufficient fulness to satisfy the wishes of the profession in general. In a measure such a criticism is warranted, but as we were about to say that the book is sadly deficient in many respects which bear only upon this point, we were reminded that its chapters are merely lectures and are not portions of a regular treatise on fevers. We have before us, therefore, a book containing statements of practical facts relating to certain diseases, and the theories regarding their nature, mode of origin, and propagation, and arranged so as to be easily comprehended by the medical student. We also believe they will be read, without weariness by the daily practitioner. It is from this standpoint that our review is to be continued. The first lecture contains an introduction, a classification of fevers, and introductory remarks on typhoid fever together with a portion of its morbid anatomy. In the introduction the author presents the two prominent theories with reference to the nature of the poison, or poisons, which produce infectious diseases; these are the chemical theory and the theory of organisms, or the germ theory. Neither of these theories is fully adopted, and the author believes that investigation in this direction has scarcely begun. The classification has an etiological basis. We have *first*, CONTAGIOUS FEVERS, embracing typhus, relapsing, scarlet, miliary, small-pox, and measles; *second*, MALARIAL FEVERS, embracing simple intermittent, simple remittent, pernicious, dengue, and typho-malarial; and *third*, MIASMATIC-CONTAGIOUS fevers, embracing typhoid and yellow.

The next six lectures are devoted to the further study of typhoid fever. Some knotty questions are developed upon these pages, but they are answered with great wariness. Indeed, this is one of the noticeable features of the book, and in the present mixed condition of recognized medical authorities we must regard it as rather commendable. For example, with reference to the question of contagiousness and spontaneous origin of typhoid fever, we find the guarded statement, "while on the one hand typhoid fever cannot be regarded as a strictly contagious disease, on the other hand it is not of spontaneous origin." This statement is at variance with the opinion of several eminent medical writers, but it is about the strongest expression that can be indulged in with safety when we study the writings of such men as Stokes, Pratt, Bouley, Jenner, de Mussy, Jaccoud, Murchison, Bouchardat, Guerin, and others, who stand upon almost as many different pedestals as there are different men.

Prof. Loomis's remarks upon the etiology of typhoid fever are terse and well placed; his description of the symptoms is compact and clear; his differential diagnosis is lucid and safe; his prognosis is well calculated to place the practitioner upon his guard; and his treatment is uncomplicated, but decisive, and that which, we believe, will commend itself favorably to the common sense of the experienced physician. To this general commendation of the treatment we wish to add that the author is sparing of drugs and observant of his patient. He evidently believes in a course of physic which is founded upon a careful "study of individual peculiarities rather than the confident administration of medicine according to art."

Yellow fever is considered in lectures eight and nine, and malarial fevers consume the seven lectures immediately following. The three next lectures are given to the description of typhus fever, while an account of relapsing fever follows in lecture twenty-two. The remaining eight lectures are devoted to the consideration of the exanthematous fevers, including small-pox, scarlet fever, and measles.

The remarks already made with reference to the description of typhoid are equally applicable to the author's study of the other fevers. The bibliography will be found convenient for reference, and is an agreeable addition to the volume proper. The book is printed on heavy paper and in a large, clear type. It contains much practical knowledge, and cannot fail to be read by a very large proportion of the medical

profession, for a concise statement of facts, with only such qualifications as can be safely indulged in without endangering perspicuity, is always acceptable.

The method resorted to in preparing the book for publication—that is, by the aid of a stenographer, is not altogether new; but it must be acknowledged that the present volume is a most creditable illustration of what can be done in that manner, when the lecturer is thoroughly prepared to perform his part of the labor.

TRANSACTIONS OF THE VERMONT MEDICAL SOCIETY. 1876.

THE Transactions of the Vermont Medical Society for the years 1874, 1875, and 1876, just published in a pamphlet of 250 pages, evince a scientific spirit on the part of the profession in that State which augurs well for the future of physiological science in this country. This is particularly true of the proceedings of the sixty-fourth annual meeting at Montpelier, October 11 and 12, 1876, which contain an important paper by Dr. A. T. Woodward on Endometritis, its Causation and Treatment, in which he collates the recent literature of the subject with commendable thoroughness, and with an independence of criticism which is in striking contrast with the usual method of physicians in dealing with the accepted authorities in gynæcology. Having once decided upon interior treatment, Dr. Woodward's plan is to swab out the womb with a solution of nitrate of silver, 30 grains to the ounce, about twice a month, making the first application four or five days after the cessation of the menses, and thus avoiding disturbance of that function. Although other alteratives may often be substituted with advantage, he prefers to try nitrate of silver first; not, however, to the exclusion of styptic iron, vitriolated tincture of lead, tannin and gallic acid in cases of menorrhagia, or of iodine tincture, nitric acid, and acid nitrate of mercury in the purulent variety. His experience, on the other hand, in the senile variety has been that iodine and nitrate of silver usually aggravate the trouble. When either of the varieties is complicated with hyperplasia, either limited to the interior or involving the cervix, he recommends the application of potassa fusa in the solid state to the vaginal cervix, as the surest and most rapid remedy, although one that must be employed with caution. The most obstinate cases of interior irritation encountered by Dr. Woodward have been those associated with anteversion or flexions; and in such instances the displacement must, he thinks, be corrected with a pessary of some kind, as a condition precedent to successful treatment of the inflammation or ulceration.

Dr. Emma H. Callender, of Middlebury, reports a curious and interesting case of hystero-epilepsy, which she pronounces unique in causation and in some of its features. The patient, a girl of 19, of delicate constitution, with antero-posterior curvature of the dorsal spine, subject to slight dysmenorrhœa, received a severe nervous shock from being plunged under water while bathing with some friends. There was complete loss of consciousness and pulse, with spasmodic and nearly arrested respiration. The convulsions lasted for six hours, and returned at varying intervals for a week, during which there was uninterrupted mania. The case went on for five months under general tonic treatment, the convulsions recurring at irregular intervals, without apparent cause, at any hour of the day or night. She ate well, slept well, and the menstrual function was regular. Although there was considerable uterine congestion, with hyperæsthesia in that quarter, Dr. Callender inclines to the opinion that gastric irritation was the more immediately instrumental in bringing on the paroxysms, which gradually assumed a cataleptic form. At length, in October, 1875, she was attacked with severe pain in the region of the spinal curvature, which lasted for twenty-one days, and then departed as suddenly as it came. During this attack, neither the pulse nor the thermometer indicated any general fever, and for the first three days the natural functions were unimpaired. Menstruation came on normally during the twelfth day, but gave no relief. The treatment was anodyne, tonic, and nutritive; and since that date the patient has been uniformly well, with only two returns of the old convulsive paroxysms, occasioned by irregularities in sleep and food, in connection, in the first instance, with an exposure to the intense heat of a July day, and, in the second, with drinking too freely of sweet cider.

Dr. J. H. Smith's exhaustive paper on Cerebro-spinal Meningitis, read at the annual meeting in 1874, is a compend of the literature of that disease which will be found valuable for purposes of reference; and Dr. George Dunsmore's paper on Syphilis must be classed in the same category. So with Dr. Atwater's dissertation on Insanity, and Dr. Putnam's on Sanitary Reform. The curious feature of the pamphlet, however, is a savage "Criticism on the Dirt Theory of the Origin of Typhoid Fever," contributed by Dr. Dunsmore, which will repay perusal as a polemic directed against the spore (germ) theory and its numerous disciples, among whom is Dr. Putnam, who bases his argument for sanitary reform in Vermont upon the putrescent origin of scarlatina, typhoid fever, etc.

FAT AND BLOOD, AND HOW TO MAKE THEM. By S. WEIR-MITCHELL, M.D. Philadelphia: J. B. Lippincott & Co. 1877.

THIS little book is an amplification of the article on "Rest in the Treatment of Nervous Diseases," which appeared in Seguin's Series of American Clinical Lectures, and contains a minute description of the author's method of treating anæmia, or rather those cases of anæmia that are complicated by nervous exhaustion, spinal irritation, or hysteria. The treatment consists in a combination of tonic influences, viz., absolute rest in bed, seclusion from friends, generous diet, massage, and electricity. None of these are new, but their combination in the way the author recommends does not seem to have been hitherto thought of. In some of the cases treated the success attained has been wonderful. Dr. Weir-Mitchell does not claim that his mode of treatment is applicable to all cases of anæmia; but those which will be benefited by it are exactly the ones which prove rebellious to iron, bitters, change of air, etc., etc., and constitute the despair of the practising physician.

The details of the treatment are given with the utmost minuteness, and the book is on that account all the more likely to prove interesting and valuable to the busy practitioner.

LIBRARY OF THE MEDICAL INTERNES OF THE HÔTEL-DIEU.—The Municipal Council of Paris has donated the sum of 2,000 fr. to the library of the Medical Internes of the Hôtel-Dieu. A similar subvention was asked for the library of the pharmaceutical internes, but was refused on the ground that the pharmacists have not yet raised their library to the standing required by the by-laws of the Municipal Council before pecuniary aid can be furnished.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Anniversary Meeting, Nov. 15, 1877.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

THE exercises of the evening were opened by prayer by REV. DR. TUCKER.

"THE INFLUENCES WHICH ARE ELEVATING MEDICINE TO THE POSITION OF A SCIENCE."

DR. T. GAILLARD THOMAS delivered the anniversary discourse, in which he studied the history of medicine from the earliest periods of civilization down to the present time.

It was in the land of Egypt that medicine as an art had its birth, and from thence it came down through Jew, Greek, Roman, and Arab, until the accumulated experience of the ages was enveloped in the night of the dark ages.

But all the records of experience were not at that time swept away. If a dividing line could be drawn between ancient and modern medicine, between medicine as an art and medicine as a science, it would be at about the latter part of the sixteenth and the commencement of the seventeenth centuries.

The three great events which contributed most towards elevating medicine to the position of a science were the introduction of inductive philosophy, the utilization of the microscope, and the discovery of the circulation of the blood. That was the tripod upon which in the beginning rested the new-born science of medicine, and they were the three great events which marked a new era in its history.

The establishment of inductive philosophy exerted a marked effect upon methods of thought and investigation.

It soon became evident that moral and physical science were to combine in elevating our noble calling. The microscope lent precision to what had been only confused facts, and opened up a microcosmic universe before unknown. The eyes of the brave Verselius were as keen as ours, but by this invention ours had become a thousand times more extended than his. If we were to lose the influence of the microscope all progress in medicine would cease.

Harvey *demonstrated* the circulation of the blood, while his opposers simply used argument. Up to that time medicine existed and flourished as an art, but at no time could it be dignified by the name of science. Then, by slow laboring degrees, each man working some isolated strand into the structure, here a little and there a little, very gradually the science began to take form and grow. Once securely established, it had made fair and satisfactory progress. But medicine would never become a pure and exact science. It must exist as a combination of science and art.

Without the science the art would remain as formerly; without the art the science must stand a profitless and useless tissue of speculation.

Science consisted of absolutely accurate knowledge, which rested for its certainty upon immutable laws. Art consisted of the application of the precepts of science to a practical end or purpose. In art truth was a means to an end; in science it was the end itself.

At the present time the most marked feature of medicine, and that upon which more than any other its foundation should be formed, was the subordination of theory to experiment; accepting nothing as fact which could not give evidence of truth to the senses of the investigator.

To physical science was medicine indebted for its more marked progress during the present century. Physical science recognized no fact directly or indirectly, which could not be demonstrated to the senses. The multiform benefits which flowed from mechanical inventions were considered, and special attention directed to the mariner's compass and to the telescope. The discovery of gunpowder had contributed largely to the progress and development of medicine as a science. Reference was made to the influence exerted by auscultation and percussion, by the ophthalmoscope, the spectroscope, and the sphygmograph.

The two departments in which special labor of late had been performed were medical chemistry and experimental physiology. Attention was directed to the progress which science had given to obstetrics, and the work of William Hunter upon the gravid uterus was regarded as the corner-stone. A glance was made at the therapeutical department. It was not to the discovery of specifics that scientific research should be devoted, but to the production and use of remedies which gave us a more intimate knowledge of disease, and assisted in its prevention as well as in its general management. Trying those specifics which the shallow enthusiasts of our profession were constantly shouting could not assist in promoting scientific medicine.

The lesson to be learned from a study of the history of medicine was, that it had gradually advanced from art to science through the adoption of means which rendered all theories subordinate to physical demonstration, and recognizing nothing as fact which could not be directly or indirectly made evident to the senses.

America heretofore had done too little for medicine as a science. The day had come when the country which had done so much for the art of medicine should do something for its science. That such men would live in the future among us, we all hoped; but to believe that such men had lived among us in the past, no one had the hardihood to maintain.

The Academy of Medicine should recognize as one of its highest functions the encouragement and guidance of willing hands among the young physicians of America.

LENGTH OF TERM IN MEDICAL COLLEGES.

Much was heard nowadays concerning an increase in the length of the college term for medical students. No more industrious and active class existed among us than the medical students of the United States, and if they did not go forth from the present curriculum well qualified in their profession, it was no fault of theirs, but the fault was among the teachers. If, therefore, reform was to be brought about, if any great results were to be reached, let the axe be laid at the root and not upon the branches of the tree.

Let more be taught in laboratories, and at the bedside, and less in the lecture-room. Let the students be made to work and observe as well; incite them to personal investigation rather than send them forth with brains teeming with multiform theories and a mass of crude material poured into them from the rostrum of the lecture-room.

On motion, made by Dr. Fordyce Barker, the Academy extended a vote of thanks to Dr. Thomas for his learned address, and referred it to the Council for publication.

The benediction was pronounced by the Rev. Dr. Tucker.

OBSTETRIC SECTION.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 19, 1877.

DR. ISAAC E. TAYLOR, CHAIRMAN.

"DOES MORPHINE EXERT ANY DELETERIOUS INFLUENCE UPON THE CHILD WHEN ADMINISTERED TO THE MOTHER DURING PARTURITION?"

DR. SALVATORE CARO read a valuable paper upon the above subject, and drew attention first to the fact that the primary effect produced by morphine was upon the nervous system. Administered in proper doses, it was simply an anodyne and agreeable stimulant. When used with the intention of producing pathological rather than physiological effects, it reduced the action of all the organs except the skin, and in that manner diminished the oxygenation of the blood, and such deleterious effect might be transmitted to the child. The causes which contributed to the production of asphyxia in the child during labor were noticed—such as obtained in almost all tedious labors, etc. Cases were related in which morphine had been used in quantities varying from one-half to one grain in from five to sixteen hours in the first stage of labor. Those were cases mostly in which instrumental delivery became necessary. The child in each instance had the appearance at birth of being exsanguinated, and death was believed to be due to conditions connected with the parturient process rather than to the effect of the morphine. In no single case had Dr. Caro noticed symptoms of narcosis in the child, after administering morphine or opium to the mother during parturition, and his belief was that the deleterious effects upon the child attributed to the influence of the drug were due to the retarded labor rather than to narcotism. A series of cases was related in which morphine was administered during the first stage of labor only, and for the purpose of relieving rigidity of the os, quieting annoying pains, etc. In all the cases the child was born in a prime condition. The morphine was given by the mouth, in doses of ½ or ¼ grain, at intervals of varying length, and the entire quantity administered in each case was as follows:

Case I.—	2 grains	in 12	hours.
" II.—	1 grain	in 7	"
" III.—	1 "	4	"
" IV.—	3 grains	in 11	"
" V.—	3 "	14	"
" VI.—	3 "	20	"
" VII.—	1 grain	in 18	"
" VIII.—	5 grains	in 20	"

Those were the more notable cases, and the last was worthy of special mention. In that instance the Doctor purposely produced full narcosis in the mother, in order to see what the effect would be upon the child. The pulse was reduced to 60, the respiration to 16, and the pupils were markedly contracted. No ill results followed, although at the time he was afraid that he had produced fatal narcosis. Respiration in the child was quickly established, and the infant was healthy in every respect. On account of severe afterpains, it was necessary to continue the morphine in ½ and ¼ grain doses for forty-eight hours. The child, from its birth, nursed from the mother, and without producing any symptoms whatever of narcosis.

Dr. Caro regarded the drug as a safe one to be used either during pregnancy or during labor.

DR. CHURCH remarked that he had been in the habit of using morphine during labor, sometimes for the purpose of suspending labor, sometimes to support and sustain the mother; but he had not seen any result produced upon the child which looked like narcotism.

DR. JOEL FOSTER remarked that he had been accustomed to use morphine for the purpose of allaying annoying pains, and had given it in one large dose, thus hoping to give the woman a little rest. He had never seen any ill-effects produced upon the child.

DR. POST preferred to use a few large doses rather than small doses frequently repeated, if the pains were annoying. He had not seen anything which would lead him to believe that the child was suffering from narcotism in consequence of its administration to the mother.

DR. PURDY had not hesitated to give opium or morphine during labor, and had never seen any deleterious effects produced upon the child.

DR. O'SULLIVAN and DR. J. C. PETERS had been accustomed to use some preparation of opium during labor, in cases which seemed to require it, but had not noticed any undesirable effect upon the child.

DR. MUNDÉ favored the use of morphine hypodermically rather than by the mouth. He thought that the effect produced by 10 or 15 ♏ of Magendie's solution of morphia, given hypodermically, was fully as severe upon the mother as to administer small doses by the mouth. It had been urged by some that morphine underwent a change in the stomach, was "digested" by the mother, hence could not narcotize the child; whereas, when administered hypodermically, it passed into the circulation almost at once, and the child might receive its narcotic influence. In the discussions which of late had been held in this city upon the question before the Section, he was of the opinion that those who took the view that morphine did not act upon the child when given to the mother during labor were in the ascendancy, both with reference to numbers and argument. Reference was made to the experiments made by Wigglesworth, of Liverpool, in which it was thought to be shown that morphine, under certain conditions, acted as a stimulant to the uterus during labor; hence the article most desired. According to his own experience, no deleterious effects had been produced upon the child.

DR. HANKS thought there was one difficulty in deciding this question, from the fact that we never administered morphine to the mother without a necessity, and the necessity in the case might be sufficient cause for all the unpleasant conditions present in the child when born. He had never hesitated to use morphine in the first stage of labor, in such doses as seemed judicious, and had never seen, so far as he knew, any unpleasant effects produced upon the child. He did not use it hypodermically, unless the stomach was very irritable.

DR. F. V. WHITE and DR. SELL corroborated the testimony already given by stating that they had not seen any ill-effects produced upon the child by the use of opium during labor.

DR. KENNEDY remarked that he commonly employed Dover's powder, in doses of 12 or 15 grs., or Magendie's solution of morphia, in doses of 15 or 20 drops, for the purpose of allaying annoying pains during the first stage of labor, and giving the woman rest. He had not seen any evil effects produced upon either the mother or the child.

THE CHAIRMAN remarked that the object for which he administered opium during the first stage of labor was to secure rest. It was both a sedative and stimulant to the uterus. He did not give it for the purpose of removing rigidity. Reference was made to a case

of rheumatic neuralgia of the uterus in a pregnant woman, treated in 1842 by the use of hypodermic injections of morphine, and without injury to the child.

Chloroform and opium were regarded as uterine stimulants. He did not partake of the view that the child could be sacrificed by the use of morphine during labor: it made no difference whether the membranes were ruptured or remained intact. He had frequently given morphine and chloroform as a uterine stimulant, instead of resorting to the forceps, when the head was well into the cavity of the pelvis. He preferred the watery extract of opium to morphine, because of the many unpleasant effects which were liable to follow the latter.

Dr. Caro's paper was referred to the Academy, and the Section adjourned.

Correspondence.

BOSTON MEDICAL CHARITY.

To the Editor of the Medical Record.

Dorchester, Boston, Mass., Nov. 13, 1877.

My Dear Sir:—In your editorial on medical charities, in the Record of the 10th inst., you remark that you are inclined to think that my statement, in the Boston *Medical and Surgical Journal* of November 1st, that twenty-seven per cent. of the population of Boston are treated at the dispensaries and out-patient departments of hospitals, is a mistake, and "that it is more nearly twenty per cent." The data upon which I based my calculations were drawn from the reports of the various institutions for 1876, and from the State census of 1875. The population of Boston at that time was 341,919. The number of medical beneficiaries in 1876 was 92,977, or slightly more than twenty-seven per cent. of the population. The *estimated* population of Boston, January, 1877, was 352,758. If this number be taken as the basis of the calculation, it will appear that the medical paupers constitute more than twenty-six per cent. of the population.

Your estimate of twenty per cent. hardly seems warranted by these facts.

Permit me to give you a few additional figures upon this subject. If from the estimated population of the city in January, 1877, given above, we subtract 92,977—the number of the non-paying residents—there will remain 259,781—the number of the paying population. The number of physicians in the city in January, 1877, was 782, or one to 332 paying inhabitants. Perhaps it was a knowledge of these facts that caused me, in the paper you have noticed, to confine my attention pretty closely to a discussion of the matter from a pecuniary standpoint.

Very truly yours,
Orville F. Rogers.

HOW TO RESTORE THE SCALE OF THERMOMETERS.

To the Editor of The Medical Record.

Sir:—Physicians are frequently troubled by the scales of their thermometers becoming indistinct, the pigment in the marks wearing out. The scale may be made distinct again by painting it with an alcoholic solution of any aniline color. Make two or three applications, let the color dry, and then rub off with a dry cloth. The aniline will fasten itself on the roughened glass of the scale alone, making each line show distinctly. Water will not remove the coloring matter, which, when it fades, may be easily renewed.

Respectfully,
Maurice Perkins, M.D., *Prof. of Chemistry.*
Union College, Schenectady, N. Y.

New Instrument.

AN IMPROVED OPHTHALMOSCOPE.

By D. E. DUDLEY, M.D.

Notwithstanding the ingenious designs — practical and commodious forms—which characterize many of the more modern ophthalmoscopes, particularly those so nicely devised and arranged, both by Dr. Loring and Dr. Knapp, of this city, I take pleasure in presenting to the profession a modified one, which, while it obviates some objections, will, I am persuaded, be found to embody all the advantages possessed by those so justly celebrated of the above-named authors.

While respecting the optical and general features of the Loring and Knapp instruments, the essential of what I may call my modification consists in arranging two equal discs containing the dioptric trains—*positive and negative*—in a form which, in my opinion, is more compact and convenient for manipulation.

This result I have obtained by collocating both discs upon an eccentric pivot, allowing thereby an overshot or projecting margin of each—the one to the right, the other to the left—from the lateral borders of the inferior third of the instrument. Upon this they are rotated and managed with all the ease and facility which distinguish those of the single disc.

Of the advantages accruing from this arrangement, I need scarcely speak. The discerning ophthalmologist will at once perceive them. By it he can adopt the form and construction of any mirror his fancy or experience may lead him to prefer. The lenses of the dioptric media, while retaining that medium aperture compatible with efficiency, may, through their *plus* and *minus* combinations, amount to a series more than sufficient for every exigency, and the instrument still kept in due bounds with regard to size; in fact, considering the number of combinations, it is the smallest of ophthalmoscopes.

The focal index can, of course, be arranged either by the metrical or English enumeration, and made to read *positives* upon one side, and *negatives* on the reverse, or both placed upon the back of the instrument, according to fancy.

This ophthalmoscope I have had made by Miller Brothers, opticians, who, in executing my design, have exhibited much skill and elaborateness of workmanship.

New York, Nov. 20, 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Nov. 18 to Nov. 24, 1877.

Clements, B. A., Major and Surgeon. Assigned to duty at Camp Douglas, U. T. S. O. 131, Dept. of the Platte, Nov. 14, 1877.

Gibson, J. R., Major and Surgeon. Assigned to duty at Fort D. A. Russell, Wy. T. S. O. 132, Dept. of the Platte, Nov. 16, 1877.

Koerper, E. A., Capt. and Asst. Surgeon, assigned to duty at Fort Sanders, Wy. T. S. O. 133, Dept. of the Platte, Nov. 17, 1877.

Munn, C. E., Capt. and Asst. Surgeon. Assigned to duty at Sidney Barracks, Nebr. S. O. 132, C. S., Dept. of the Platte.

Winne, C. K., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort McPherson, Nebr. S. O. 132, C. S., Dept. of the Platte.

Moseley, E. B., 1st Lieut. and Asst. Surgeon. Assigned to duty at Camp Robinson, Nebr. S. O. 132, C. S., Dept. of the Platte.

Newlands, W. L., 1st Lieut. and Asst. Surgeon. Assigned to duty at San Diego, Cal. S. O. 142, Div. of the Pacific and Dept. of California. Nov. 14, 1877.

Corbusier, W. H., 1st Lieut. and Asst. Surgeon. Assigned to duty at Camp Sheridan, Nebr. S. O. 133, C. S., Dept. of the Platte.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending November 24, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Nov. 17.....	0	9	59	1	17	57	0
Nov. 24.....	0	12	68	3	29	79	0

Art in Hospitals.—The *Lancet* for October 20th describes a picture-frame designed by Dr. Lawrence Hamilton, whose efforts to promote the artistic decoration of hospital wards have attracted considerable attention in England, with special reference to economy and to sanitary requirements. The frame is made of metal, and arranged for the reception of two pictures, separated by a diaphragm, which, in place of being covered with glass, should be well varnished both at the front and at the back. It may be japanned of any color, or ornamented with any designs that taste may suggest. Dr. Hamilton claims for his invention the important advantages that it is non-absorbent, and that it may be cleaned with hot water, or readily disinfected with carbolic-acid water, or even heated in a dry oven—a treatment to which ordinary frames cannot be subjected. The economy of having each frame carry two pictures, which may be reversed at convenient intervals, is obvious at a glance. It is a familiar fact to physicians that the backs of picture-frames hung in the ordinary way, with the inferior edge against the wall, become, as Dr. Hamilton styles them, aerial dust-bins, sometimes undisturbed for months, in which large quantities of dust, loaded perhaps with the germs of contagion, are permitted to accumulate; and what hospital dust actually is has been described recently by M. Pasteur, after a brilliant series of microscopic observations. The inventor insists that pictures in hospitals should be hung parallel with the wall—not at an acute angle; but this appears to be scarcely necessary with backs formed by varnished or glazed pictures, which may be turned and dusted as often as necessary; particularly as, unless hung inconveniently low, a glazed or varnished picture, as well as one protected with glass, is resolved into a mere blur of drawing and color when viewed at an angle either acute or obtuse as respects the optic axis. The subject, however, is pregnant with one valuable suggestion, namely, the impropriety of framing hospital pictures in frames of porous wood, unplaned at the back, and covered in part with common brown paper—consequently, adapted to absorb and retain the moisture of an atmosphere often saturated with the impurities and infectious elements of disease.

Phosphorescence of Quinine.—Prof. Landerer writes to a pharmaceutical journal in Paris, that, if sulphate of quinia, placed upon glazed paper lying upon a silver plate, is heated carefully to from 50° to 62° C. (122° to 144° F), and then stirred in the dark with a glass rod, it emits a phosphorescent light of extraordinary beauty, which lasts until the heat is exhausted. Valerianate of quinia, as readers are aware, behaves in a similar manner at an ordinary temperature, its crystals becoming phosphorescent when rubbed or pounded in a mortar.

Effect of Magnetism on Insects.—Dr. John Vansant, of New Orleans, writes to the *Philadelphia Medical Times* of a recent date, giving an account of a series of experiments relative to the action of the magnetic current on insects. One of these experiments was conducted upon a spider, with a mere toy magnet. On placing the instrument, armature removed, in such a position that the insect was between the poles, it stopped almost instantly, and in a few seconds became perfectly motionless, but, two or three minutes afterwards, commenced to move its legs and to lift and depress its head in a very singular manner. In about five minutes it ceased its movements altogether, and was apparently dead. He has killed worms and insects in this way frequently, and concludes from his experiments that terrestrial magnetism must exercise an important influence upon the functions of animals.

Small-pox in Bordeaux.—A moderately severe epidemic of variola has been raging in Bordeaux for some time past. The epidemic was latent for about six months, but has become active of late. The Hôpital Saint André is full of patients, all of whom come from the same quarter of the town—the neighborhood of the place Saint-Julien and the Rue Henri IV.

The Hospital Gazette and the Archives of Clinical Surgery is the name of the new journal formed by the consolidation of the *Hospital Gazette* with the *Archives of Clinical Surgery*. This new periodical contains 24 pages of printed matter in octavo form. The editors, Drs. Beimingham and Lyons, are assisted by able collaborators.

Examination at the Royal College of Surgeons of England.—During the past collegiate year, of the 87 candidates who underwent the primary examination for the fellowship, 43 were rejected. At the final examination 27 out of 37. At the primary examination for the membership, out of 792 candidates, 246 were rejected. At the final examination, out of 569 candidates examined. 356 passed.

The Crescent and the Cross, and the Red Cross.—Active efforts are now being made in this city to furnish supplies of all kinds for the sick and wounded in the Russian and Turkish armies. The Red Cross Society, a branch of the one founded by the Empress of Russia, furnishes relief for the Russian sick and wounded, while the Crescent and the Cross Society proposes to minister to the wants of both contending sides.

Original Lectures.

DISEASES OF THE NERVOUS SYSTEM.

A Lecture Delivered at Bellevue Hospital Medical College.

By C. E. BROWN-SÉQUARD, M.D.

EFFECT PRODUCED WHEN BRAIN DISEASE STRIKES AT THE ORIGIN OF NERVES—DIAGNOSIS OF HEMIPLEGIA—DISTINCTION BETWEEN DISEASE OF ONE-HALF OF THE SPINAL CORD AND DISEASE AT THE BASE OF THE BRAIN—NEW SYMPTOM—EFFECT UPON TEMPERATURE, ETC.—ZONE OF ANÆSTHESIA—DISTURBANCES OF OTHER ORGANS: KIDNEYS, HEART, LUNGS, ETC.—ABSENCE OF CONVULSIONS IN DISEASE OF THE PONS VAROLII—DIAGNOSIS OF DISEASE OF THE CRUS CEREBELLUM—PARALYSIS A CONSTANT SYMPTOM OF BRAIN DISEASE.

(Reported for The Medical Record.)

Gentlemen:—At the last lecture I referred to a number of cases, with the purpose of showing that any lesion in the side of the brain can produce the greatest variety of forms of paralysis—the greatest variety as regards the extent, the degree, and the persistence of paralysis. This, of course, has led a number of you to think it to be extremely difficult to make a diagnosis of the locality in the brain of the disease which produces paralysis. No doubt, it is extremely difficult, but as you will see, from what I shall say to-day, there are features which can lead to diagnosis of locality of lesion, even when what we observe is entirely in opposition to the views which are generally accepted.

But before I speak to you of those facts which lead to diagnosis of the seat of the disease that has produced the paralysis—the symptoms of the disease—I have a few words more to say upon a point which escaped notice in the previous lectures. It is this: the theory published by Dr. Broadbent has been put forth with the view of explaining certain difficulties which we find as regards the seat of paralysis. As I told you yesterday, in most cases of brain disease producing hemiplegia, the hemiplegia consists almost exclusively of paralysis limited to the arm, the leg, and to some of the muscles of the face. There are many parts of the body which escape paralysis in the immense majority of cases of disease of the brain. Those parts are the muscles of the trunk, the muscles of the neck, those muscles which go from the trunk to the limbs—the arms or the legs. Those muscles escape paralysis more or less, rather more than less, in the immense majority of cases. Dr. Broadbent has tried to explain this fact in admitting that there are certain parts of our body which depend on a centre located in the medulla oblongata or at the lower part of the pons varolii, and which has the power to act upon both sides of the body. So, admitting that one side of the brain is destroyed totally, including that nerve-centre which is the corpus restiformis upon the same side, the corpus restiformis upon the other side is alone sufficient to move the two sides of the body, and thereby the muscles which have escaped paralysis. The view is certainly true in a great measure, but it is faulty in this; Dr. Broadbent, as well as most medical men, considers the corpus restiformis as a motor-centre. The reality is, as I hope to be able to demonstrate, that a small part of one side of the brain is sufficient for both sides of the body, not only for the muscles which escape paralysis, but for the muscles of the limbs as well.

I now pass from this to what I have to say regarding the significance of certain symptoms in the diagnosis of the seat of the brain disease which causes paralysis. There is one fact, very important indeed for you to understand fully before I enter into details upon this point. As you well know, there are nerves arising from the base of the brain, nerves which serve as centres, which serve for general tactile sensibility, and also as nerves of motion. Then you must make a distinction between cases of paralysis of those nerves dependent upon disease which strikes at the very place from which those nerves arise, in which case the trunks of the nerve itself or its immediate roots within the base of the brain are implicated, and those cases in which these nerves are paralyzed when the lesion is beyond the place of their entrance into the base of the brain.

Suppose, for instance, a lesion occurs in the medulla oblongata in the immediate region where the root of a motor-nerve has its origin; if the disease strikes there, it of course destroys some of the fibres of the nerve, and it destroys the cells also from which the nerve-fibres arise. But let the disease be located in another part of the brain—at a point beyond—where there are no nerve-fibres arising which form a connection with the nerve which goes down from the medulla oblongata, then you will have a result completely different from what you have when the cell itself of the motor-root is struck by the disease. In those cases of paralysis of nerves in the base of the brain dependent upon destruction of the cell which gives rise to the nerve-fibre, or striking the root itself before it reaches these cells, you have just the same result produced as if the nerve-trunk had been affected outside of the brain.

Something quite different takes place when the disease is beyond the origin of these nerve-fibres. In what I have already said in a previous lecture with reference to paralysis of the muscles of the face, muscles of the eye, paralysis in the tongue, in the neck, and elsewhere, I had in view only those cases in which the paralysis depended upon disease inside of that zone or layer of nerve-cells which gave rise to the motor nerve-fibres going to the tongue, to the eye, etc. There is no question that, when you find disease in the base of the brain striking the nerve or its roots before they reach the cells of origin, there will be paralysis upon the same side of the body in which the disease is situated. It is quite evident that it must be so. You have a cause acting the same as if you had divided the nerve itself outside of the brain, and of course you have paralysis of the nerve.

In what I have now to say, you will find that what I have just mentioned is of the greatest importance; I will illustrate at once the meaning of this. You will see that in case of disease of the pons varolii, for instance, a little above the place of origin of the facial nerve—the nerve which acts upon the muscles which give expression to the face—there is a characteristic condition produced.

If the disease is upon the roots of the facial nerve, or upon the cells which give origin to these fibres of the facial nerve, the muscles of the face upon the same side of the seat of the disease will be affected. If the disease is elsewhere, as a rule, the muscles of the face upon the side opposite to the seat of disease will be affected. So you see that in disease in the same organ, the pons varolii, you may have results just the reverse of each other. The face may be paralyzed upon the right or upon the left side; but as regards

the limbs, as a rule, you will find them paralyzed upon the side opposite to the seat of the lesion.

What I wish you now to fully appreciate is the fact that, when the disease strikes at the origin of the nerves, necessarily it produces paralysis in the nerve; that nerve may be the olfactory, the optic, or any one of the cranial nerves. In any of these cases the very same thing will occur with regard to the seat of the paralysis; it will always be upon the same side with the lesion.

DIAGNOSIS OF HEMIPLEGIA.

I come now to the diagnosis of various cases of hemiplegia. I must first point out the fact that disease of one-half of the spinal cord, as well as disease at the base of the brain, can produce hemiplegia, and how you are to determine where the seat of the disease is, is what I will try to explain. You may find two persons struck down suddenly with loss of consciousness, sometimes with convulsions — convulsions are not essential, however—and after their recovery from the shock, you find that there is paralysis, in both cases, on one side of the body. We will suppose that the right side is paralyzed. One of these persons makes grimaces upon the side of the face corresponding with the side on which there is paralysis of the extremities; so you may be inclined to think that there is paralysis of the face upon the opposite side.

NEW POINT IN DIAGNOSIS.

This point in diagnosis, so far as I know, has not been mentioned except by myself, and as it is a constant phenomenon in certain kinds of lesion of the spinal cord, I wish you to be quite aware that in that case there is merely an appearance of paralysis upon the side of the face opposite to that on which there is paralysis of the limb. If you pay attention only to the appearance of paralysis of the left side of the face and on the right side of the body, and establish the fact that the man has had an attack of apoplexy, loss of consciousness, etc., you will certainly, and quite naturally, according to the teachings of science until now, be led to admit that there has been somewhere in the brain a lesion which has produced all these symptoms. That may be a mistake, or it may be correct; because lesion in one-half of the spinal cord very near the medulla oblongata can produce all these symptoms. I will say at once that when you examine the face, you will find that the side which seems to be paralyzed is not the paralyzed side. You will find that there is no paralysis of the face upon either side in that case. You will find that the appearance of paralysis comes only from the fact that, on the side of the lesion in the spinal cord, there is simply a spasmodic state of certain muscles of the face.

In cases of spinal hemiplegia, paralysis of one side of the body, depending upon disease high up, and limited to one-half of the spinal cord, you will find that there is a series of symptoms such as I mentioned a moment ago. You will find features which certainly will distinguish these cases from cases of hemiplegia, depending upon disease of the brain. If you examine the patient carefully, you find that there is paralysis, and as I have supposed the lesion to be in the right half of the cord, the patient is paralyzed in the right limbs; but there is no diminution of sensibility. On the contrary, there is considerable increase of sensibility, as measured by the esthesiometer. The hyperæsthesia may be extremely great. Indeed, in the case of one of my dear friends, Mr. Charles Sumner, at the two points in the spine which had been injured by a cane in an assault made upon him in the Senate Chamber, both points of the instrument could be distinctly recognized, no matter how near to each other they were placed.

That kind of feeling—that of touch—may be increased considerably in many other cases; but in spinal hemiplegia the tactile sensibility is increased in the paralyzed limits to a considerable extent.

Other kinds of feeling are also increased. Painful feeling is often considerably increased, and sometimes it is so great that a mere touch produces a scream. There is also an increase in the power of detecting differences of temperature. There is lack of power of enduring the contact of anything very cold, or very hot, as those things will produce decided pain. There is besides an increased sensitiveness to tickling. But there is another feature which will assist in making a diagnosis between this form of paralysis and that form dependent upon disease in the base of the brain, and that is the condition of the muscular sense. When the patient has but little power of motion the muscular sense is very good indeed, and he will know perfectly well where his limb is without the necessity of placing the hand upon it to determine its location.

Now, in the contrasting condition, there is loss of sensibility of all kinds. The loss may be absolutely complete, so that the patient is not able to feel any blow, prick, tickling, galvanism, etc.

As regards the temperature in the limbs, there is another distinguishing feature. You will find that the limbs are very much warmer where the muscles are paralyzed, and lessened in warmth upon the opposite side. There is then a double effect upon the temperature; increase upon the side of the lesion, and diminution upon the opposite side. But these are not the most interesting features of such cases. You will find that the face is warmer upon the side of the lesion; and that is because the fibres of the sympathetic nerves going to the blood-vessels of the head are divided upon that side of the spinal cord. There is higher temperature in the face, higher sensibility, and greater redness of the eye and ear. There is also a symptom to be observed in the eye: and that is dilatation of the pupil upon the side of the lesion. These are effects which we know will follow galvanizing the sympathetic in the neck. All these effects are found in connection with disease of one-half of the spinal cord.

The fact that the muscles are contracted is in consequence of the greater afflux of blood to the part; it is not due to changes occurring in the nerve-centres, but to the local fact of being fed far more abundantly than in health. Hence, they are in a state of greater tonicity, as it were; but there is no trace of paralysis on either side of the face. That fact will serve as a diagnostic feature between the form of hemiplegia depending upon disease of one-half of the spinal cord, and hemiplegia depending upon disease in the base of the brain. Besides, there are a great many symptoms of disease in the base of the brain which do not exist with disease affecting one-half of the spinal cord.

I now pass to other facts. In cases of disease of one-half of the spinal cord, you will find that there is usually a feeling of stricture about one-half of the body at a level with the seat of injury in the cord.

ZONE OF ANÆSTHESIA.

At that place there is something that can be recognized which is very interesting indeed, and which is in harmony with the view regarding the origin of nerve fibres. As the lesion in the spinal cord necessarily destroys some nerve-fibres which do not supply the

motor trunk, there is a zone of paralysis of sensibility at the level of the injury in the cord. Some of the sensory roots have been involved; hence the loss of sensibility in that circumscribed region. We have hyperæsthesia below and above the seat of the lesion, and a small zone of anæsthesia at the place where the lesion occurs, so that the body is separated into *three* zones—*two* of hyperæsthesia, and *one* of anæsthesia. Nothing of this kind is present in hemiplegia depending upon disease in the base of the brain. You can already see that diagnosis can be easily established, and you will see this much more clearly as I come to speak of the symptoms of hemiplegia depending either upon disease of the medulla oblongata, or other parts of the brain.

GENERAL SYMPTOMS.

When there is disease in the medulla oblongata, or pons varolii, there are general symptoms which are of great interest, not so much for diagnosis, as for prognosis. They are important in deciding upon the chances for restoration to health, and the chances of death; and also the means of treatment are not the same as when the disease exists in other parts of the brain. These general features are that, according to the seat of the disease in the base of the brain, there are nerves implicated which show where the disease exists. Supposing it to be in almost the entire length of the base of the brain, from the origin of the optic bands down to the spinal cord, you will find that all the nerves which take their origin in that part are more or less implicated in the disease. If you know what these nerves are, you can easily understand what the symptoms will be. I will simply mention that as the *third* pair of nerves is implicated, certain results will be manifest in the eye, and you will find the pupil affected, and the motion of the eye will be affected. Other nerves are implicated, and the effects are exceedingly complex, but they are in perfect harmony with the known functions of the nerves having their origin at the base of the brain. So the diagnosis may be perfectly clear, and you will find, as a rule, that the paralysis, instead of being upon the same side, as in the case of disease of one-half of the spinal cord, is upon the opposite side of the body. If there is loss of feeling, it is where loss of movement exists.

DISORDERS IN THE KIDNEYS, LUNGS, AND HEART, ETC.

But there are other features: there are disorders which take place in many of the organs of the body. The urinary secretion is disturbed; sometimes increased immensely, with or without the presence of sugar. When sugar is present, the quantity of urine is not so much increased as when the sugar is absent, but it may be considerably increased in quantity. We may have then both forms of diabetes—insipidus and mellitus. These two forms of diabetes are found in connection with all diseases in the base of the brain, but they may exist in connection with disease very far from the brain. To my knowledge, these forms of diabetes never exist when the spinal cord is the seat of disease.

There are many other features. I have shown that lesions of the pons varolii, or medulla oblongata, affect the lungs almost at once. That is the fact in most cases in which the lesion is made in animals. I may say that it is frequently so in man. One of the chief effects produced by lesion in the pons varolii in man is considerable congestion of the lungs. Another effect, which depends almost only upon lesion in the pons varolii where the crus cerebri comes into it, is hemorrhage into the lungs. This occurs very frequently indeed; sometimes it is slight, and sometimes enough to destroy life rapidly. It was known that hemorrhage into the lungs occurred in connection with hemorrhage into the base of the brain, but it had been supposed that it took place because of the same alteration in the walls of the blood-vessels in the lungs as was present in the blood-vessels in the brain. My friend Professor Charcot and Bouillaud made the great discovery that hemorrhage in the brain depended almost always upon the rupture of small aneurisms—miliary aneurisms. It was imagined, and it has been found to be the case, that the blood-vessels in the lungs also have the same kind of aneurismal dilatations, and it was thought that in those cases in which hemorrhage, either small or large, took place in the lungs, after having hemorrhage into the brain, it was dependent upon the same cause. Without doubt it is so in some cases, but, as a rule, when the hemorrhage in the lungs appears very quickly after that which occurs in the brain, it is produced in a direct manner by an alteration in the circulation in the lungs.

I have asserted that the breaking of blood-vessels in the lungs depends upon this change. The arteries and veins become so contracted that there is not a trace of blood in them, and then the congestion goes so far that a capillary breaks, and there is hemorrhage. It is one of the causes of death in disease of the pons varolii, or perhaps at other parts of the base of the brain.

This cause of death has not been sufficiently guarded against, and it very frequently happens that no examination of the chest is made in these cases. This is a fault which I myself have fallen into, but it should always be kept in mind that great alteration can take place in the lungs in consequence of disease in the base of the brain.

The opposite may occur, perhaps, in one out of ten cases.

We have, then, *first*, congestion of the lungs, and, after a time, there may occur foci of inflammation in connection with acute disease in the base of the brain. As the patient has more or less difficulty of breathing, on account of the brain disease itself, the disease of the lungs passes unnoticed, and no local treatment is applied which could be of great service to the patient. I have no doubt that we may recall to memory a great many cases published as fatal cases of disease, occurring at the base of the brain, which terminated fatally, not because of the brain disease itself, but because of subsequent disease of the lungs, which passed unnoticed during life.

There is, therefore, in cases of disease of the brain, an effect, which is of great importance, produced upon the lungs. Another effect which is of great interest can take place. As you well know, the par vagum takes its origin in the medulla oblongata. And you know that if this nerve is galvanized, the heart's action is arrested. Well, acute disease in the medulla oblongata, or close to it in the pons varolii, will produce irritation of the par vagum, and may reduce the heart's action to such an extent as to prove fatal. You doubtless know that there are a number of cases upon record in which death was caused by pressure upon the medulla oblongata, from displacement of bones, or some other cause. There is this feature, then, in connection with disease in that region: that is, there is a diminution in the beat of the heart—a diminution in force rather than a diminution in speed.

There are other features belonging to lesion in those parts. As you well know, the œsophagus, the pharynx, and the larynx are supplied with nerves which arise from this region. There may be spasm

in these organs. In a case which I shall always remember, for it occurred in the person of a most dear friend of mine, there was such spasm in the œsophagus that it was absolutely impossible to feed him by the mouth; not even a tube could be passed through the œsophagus, so great was the spasm, and we were obliged to sustain his life by nutritious injections into the bowels. The material used was the fresh pancreas of an animal, with hashed meat. The fat is removed from a fresh pancreas, and the influence of the remaining portion upon nutrition is pretty nearly the same as if a series of meals were taken in the usual manner. In the case of my poor friend, life was maintained eight days solely by this process of eating.

There is, therefore, an effect produced upon these parts by disease situated at the base of the brain, as mentioned. There are other features of interest. You may diagnose very easily, for instance, whether there is disease present upon the origin of the trigeminus nerve, by change in the state of the cornea. The cornea becomes somewhat inflamed, and after a time the eye may be destroyed. You already know that Magendie has long ago shown that when the trigeminus is divided in an animal there will follow impairment of nutrition in the eye, and after a time the organ will be lost. Magendie also has shown that all the senses are affected by division of the trigeminus—the sense of sight, of audition, of olfaction, as well as the sense of taste. This conclusion of Magendie would not have been drawn had he been familiar with the phenomenon of the loss of function. When the trigeminus is diseased or divided, the nerve-fibres produce no action, and that result is quite sufficient to produce loss of sensation, and the nutrition of other organs of sense is disturbed by such result.

A blow upon the frontal nerve, for instance, may be sufficient to cause loss of sight, and, besides, a considerable alteration in the nutrition of the eye. Irritation produces loss of all the senses, and in that case it may be from reflex action affecting the blood-vessels, thus changing the nutrition. Disease of the optic thalamus, for instance—a part far away from the origin of the trigeminus—can produce by its effect, through the trigeminus, an alteration of sensation, and an alteration of nutrition in the cornea and loss of the eye, the same as if the trigeminus itself was diseased or divided. Therefore, when you find loss of nutrition upon either side of the face, and alteration of sensation upon that side, you can judge that the cause or lesion is upon the side where the trigeminus is disturbed.

Now comes something in the way of diagnosis that is of the greatest importance. In a case I found these symptoms associated with paralysis of the limbs upon the same side. I concluded, therefore, that the lesion was upon the pons varolii in the origin of the trigeminus, and I concluded so from the fact that there were present the changes in nutrition and sensation which I have just described. The patient died subsequently, and Dr. Edes, of Baltimore, found the lesion at the exact point at which it was thought to be situated. There was no special maturity in making the diagnosis, but I mention the fact simply to show that you may find disease upon one-half of the pons varolii producing upon the same side paralysis of motion and changes affecting the sensation and nutrition of the eye, upon the same side. But disease at the same point can produce just the reverse, and we may have paralysis upon the opposite side, anæsthesia upon the opposite side, and rigidity of the muscles. So you may have paralysis upon the same side with the lesion, or paralysis upon the opposite side. I will add that you may have motion lessened in that part, with clear symptoms belonging to the trigeminus, without paralysis in the trunk, or in the limbs. There is in this last case, perhaps, some difficulty in the diagnosis. You may think that the trigeminus alone is affected, but it is not necessarily so; for a great part of the pons varolii may be destroyed without producing paralysis, except in the nerves which arise from that region of the brain. Those nerves have been most affected, but in some cases, one especially published by Stanley, a tumor had destroyed one-half of the pons varolii, and there was only incomplete paralysis upon the corresponding side.

The diagnosis in that case would have been clear, from the fact that the trigeminus was affected completely, and the eye was destroyed. There was also present a symptom which is not rare in connection with irritation of the trigeminus, and that is paralysis of the face. There is, therefore, no great difficulty in diagnosis of disease affecting these parts. Another feature you will find very frequently in these cases of disease at the base of the brain. You will find that there is, instead of paralysis of the limbs, anæsthesia or a great deal of hyperæsthesia.

ABSENCE OF CONVULSIONS IN DISEASE OF THE PONS VAROLII.

You will also find that there is a remarkable absence of symptoms. The pons varolii has been considered as a part perfectly able to produce convulsions. It is so in animals, and convulsions are readily produced by irritating that part of the brain; but it is not so in man. Disease there produces convulsions less frequently than disease elsewhere in the brain. So if you find that convulsions are not present, and there are symptoms showing that the nerves arising from this part of the brain are affected, you will almost certainly be led to admit that there is disease at that point. There is a part close to the pons varolii which may give rise to most interesting features, and indeed it is not rare that disease in the pons varolii produces some of these symptoms. It is that part which is close to the edge and unites the pons varolii with the cerebellum, the crus cerebellum. When this part is irritated, a rotary movement of the body is produced. It is not special to irritation of that part, however, but irritation of the crus cerebrum and other parts of the brain may produce the same kind of movement.

DIAGNOSIS OF DISEASE OF THE CRUS CEREBELLUM.

Diagnosis of disease of the crus cerebellum alone is usually very easy. Hemiplegia depending upon disease of the crus cerebellum may appear upon the same side or upon the opposite side of the body. As a rule, it appears upon the opposite side. But there are two cases out of the entire number, which is not large, of disease of the crus cerebellum, in which paralysis was present upon the same side. The crus cerebellum has been considered as the point of union of those parts of the brain which produce voluntary movements with those parts which produce sensation. So you see that in case of disease of one crus cerebellum you should have always complete paralysis of movement, and complete anæsthesia upon the opposite side of the body. This is absolutely false. Out of some thirteen cases of this kind upon record, complete paralysis is not at all frequent, and cases of complete anæsthesia are very rare—indeed, I know of only two such cases. The facts, then, are not in harmony with the theory that the crus cerebellum is a part containing all the

motor and sensitive fibres going to the opposite side of the body. So little is that true that there are cases in which destruction of the crus cerebellum has occurred without paralysis at all. Certainly, there are ten cases on record in which the entire mass of the crus cerebellum has been destroyed without producing paralysis upon the opposite side, and without producing anæsthesia. I have said that paralysis in some of these cases *seemed* not to exist at all, but it is quite an essential matter that, in the future, more reliable means are employed to ascertain whether paralysis is present or not, than those which are usually employed.

PARALYSIS A CONSTANT SYMPTOM OF BRAIN DISEASE.

If you see a man walk about, see that he is able to stand firmly upon his legs, and find that he grasps with both hands firmly, etc., you are at once inclined to think that there is no paralysis. I must say that, although there are many cases of disease of the brain in which there is not marked paralysis, my belief is that, in every form or kind of brain disease, were we in the habit of studying the patient more carefully, we should have a great chance of finding some degree of paralysis.

Most of the instruments employed for this purpose are exceedingly defective.

[A description of an instrument was given. The inventor is one of the Professor's friends. It gives a very clear measure of the strength of the legs, and it can be used to measure the strength of any part of the body.]

I do not think that we can find the exact strength a patient who has brain disease possesses, unless it is measured by some reliable instrument. When I say that sometimes disease almost entirely destroys one corpus cerebellum, or any other part of the brain, without the production of anæsthesia or paralysis, I only mean that so far as the cases have been recorded, no paralysis has been noticed, but I suspect that some degree of paralysis was present.

Original Communications.

THE CONTROL OF ZYMOTIC DISEASES BY PROPHYLACTIC TREATMENT.

By EZRA M. HUNT, M.D.,

METUCHEN, N. J.

A few weeks since we had occasion to draw attention to that department of preventive and hygienic treatment which may be designated as *Individual Sanitation.*

We sought to illustrate how many of the zymotic and other diseases are capable of prevention or modification, not only by isolation or outward disinfection, but also by such prophylaxis of the individual as will render him unsusceptible to the contagium, or so little susceptible as to fortify him against its virulency.

While isolation and disinfection of surroundings is important, it is easy to see that a still more radical and valuable method is instituted, if we can fortify the individual against attack. We incline to the belief that in every case where one member of a family is seized with any dangerous zymotic disease, it behooves us to place all those exposed to seizure upon such preventive treatment as has been indicated in a former paper. Since then some new opportunities of trial and test have been afforded by an epidemic of diphtheria, which, though not very extended, has been of a malignant type.

The first case coming under my observation was that of a lady of twenty, who had the disease in the most aggravated form in which I have ever seen recovery take place. The nurse and younger members of the family were placed upon preventive treatment. One, a servant-boy of thirteen, was overlooked. He alone took the disease, and went to his home near by, in which were five other children. These were at once placed on preventive treatment. Two, being out at work, did not follow out the treatment with that exactness on which we believe the best success depends. These had an exudation and violent fever, which vanished in two days, as when variola shows itself as only varioloid. The rest escaped attack.

In another family of seven, two children were taken on consecutive days, there being four other children in the family. Of these one was sick with remittent fever, and it was not thought best to place him upon preventive treatment. He contracted diphtheria in seven days, and died five days after from its invasion into the trachea. Of those put upon treatment none took the disease save one. She, however, on examination of the tongue, gave evidence that she had failed to follow the treatment. Although of full age, she had defective memory, and it was found that the directions had not been followed. In some other cases, because of no exposed children, or of coincidence of attack, it was not possible to make full trial of prophylaxis. But in these three families I have been greatly confirmed in the opinion that much in the way of limitation or prevention is to be accomplished by precise and regulated sanitation of those exposed.

Why should it not be so? Did not the preparative method for inoculation show how much, by previous dealing with the individual, can be done to make a contagion innocuous?

Most of the contagions are transmitted through the breath, and be they germs or particles, are dependent for their direful success upon a favorable local field for operation. Disease becomes constitutional because at first local, as well as become local because constitutional. If the breath is surcharged with substances or vapors unfriendly to the materies morbi, there is less probability of its successful occupation of the avenues of entrance or the system at large. In some cases the styptic or caustic character of the article used, or the albuminoid coating it affords, interferes with exudation or with that coaptation of plastic secretions, which thus, while thin and soft, are disturbed, before their tenacity or organization is so settled as to be serious. Another class of substances show ability to take possession of organic matter at once, or so to condense or absorb the gases of decay, or so prevent putrefaction or fermentation, as practically to suspend the power of disease toxics. Thus ozone, turpentine, and the permanganates are well authenticated as accelerating oxygenation, and as preventing decomposition, or readily taking possession of the products of decay. If so, there is every encouragement to avail ourselves of them at once, instead of waiting for declarative symptoms. Carbolic acid, salicylic acid, boracic acid, quinine, etc., are unfavorable to germ life, and if this be either the originator or conveyancer of disease, a breath or a system surcharged in advance has hopeful probabilities of resistance.

Still further, Prof. Polli, in his experiments in the treatment of zymotic disease, has found that the bodies of dead animals which have been fed on the sulphites resisted putrefaction much longer than others, and that urine from living animals thus fed remained

fresh, acid, and clear, and free from ammoniacal odor for several summer days. The fact, too, that cotton-wool, carbolized lint, porcelain, etc., do delay or interrupt the passage of disease factors, has some weight in its application to inbreathed air. Although there is need of patient and exact research, we are working in a hopeful field when we seek by precautionary individual treatment to establish resistance, either mechanical, chemical, or vital, to the outside factors of disease. With the mouth, the nostrils, the throat and lungs, the stomach, the salivary and lymphatic glands mildly permeated or wrought upon by such safe yet valuable agencies as have shown ability to meet the contingencies of foreign invasion and morbid changes which are being initiated, we believe the system can generally be fortified against attack, or to such resistance as will avoid danger. Many a disease has the start of us just because the patient has begun to die when the sickness has begun to manifest itself. If only we can preoccupy during the period of attempted and concealed invasion, one ounce of prevention can do greater marvels than one pound of cure.

A CONTRIBUTION TO THE THERAPEUTICS OF MIGRAINE.

(Read before the Section on Practice of Medicine in the New York Academy of Medicine, Nov. 20, 1877.)

By E. C. SEGUIN, M.D.,

PRESIDENT OF THE NEW YORK NEUROLOGICAL SOCIETY.

GENTLEMEN:—The contribution to the therapeutics of migraine which I have the honor to read this evening, will probably strike you as very fragmentary and inconclusive, but I would ask you to consider in a charitable spirit that it is the result of only a few hours' work, and that it is intended as a suggestive rather than a didactic and formal essay.

So short has been the time which has elapsed since I was asked to participate in this evening's work, that I have not been able to collect scattered notes of cases and to make inquiry of former patients; both of which would have been necessary had I wished to base my statements upon statistics. At some future time it may be possible to supply the data upon which the succeeding assertions rest.

Briefly stated, my thesis is THAT BY THE LONG-CONTINUED USE OF CANNABIS INDICA, MIGRAINE OR SICK-HEADACHE MAY BE CURED, MUCH RELIEVED, OR MITIGATED IN SEVERITY.

This idea is not by any means original with me, but was brought out by an English physician, Dr. Richard Greene, who published a short article upon the subject in *The Practitioner*, Vol. IX., p. 267. London, 1872. After reading the article I immediately began using the remedy, cannabis indica, as directed by Dr. Greene, and have continued to do so ever since. My former partner, Prof. William H. Draper, has also used the treatment somewhat during the same period of time; and both of us have been much gratified by the results obtained. I may add, that some inquiry has convinced me that, in this country at least, the article passed unnoticed, and the plan has not been generally tried.

Before proceeding to give details concerning the treatment, it might not be amiss to recapitulate the diagnostic characters of migraine or sick-headache. This affection is essentially neuralgic in its chief manifestation, viz., a severe or excruciating pain *in* the head and orbit, but not along the superficial branches of the trigeminus. It affects both sexes, from the age of six or ten years to that of forty or fifty. In some patients it makes its first appearance at puberty, and terminates before the sixtieth year. In females it may, after undergoing aggravation or transformation, cease at the menopause. Very rarely does the disease cease before thirty, and still more rarely does it first appear at that age.

Migraine is pre-eminently an inherited disease, perhaps more directly so that any other neurosis. I possess numerous tables of families in which many members of three generations were affected.

Migraine is periodic in its manifestations, nearly as much so as epilepsy; patients have attacks every two months, or monthly, or every week—seldom several in a week. In some women the periodic return of migraine coincides with menstruation.

An attack of sick-headache usually begins in the very early morning, and lasts all day—seldom longer in uncomplicated cases. In many cases certain premonitory symptoms precede the occurrence of pain. The day or evening before the attack some feel unusually bright and well. At the earliest waking on the day of attack there may be chilliness, or numbness of a limited part of the body, dim vision, colored vision, or hemiopia. These optical disorders are of exceeding interest, and are best observed in those patients whose attacks begin some time after rising. They usually last less than half an hour. Although amblyopia, hemiopia, photopsia are often very serious symptoms, yet in migraine they lose their prognostic significance. In other persons nausea is an early symptom. Pain follows upon the above disturbances and sometimes makes its appearance without them. It is usually in one side of the head, hemicrania; deeply placed "in the brain" or "back of the eye," as patients tell us; it grows in intensity, is sharp, or beating, or pressing, and may reach such a degree of severity that patients strike their heads violently against hard objects, use chloroform, or beg for hypodermic injections of morphia to obtain relief. During the existence of this pain, which may extend to the rest of the head, there is hyperæsthesia of the eye and ear, great irritability, pallor of the face, cool skin, intense nausea, and severe vomiting. So prominent a symptom is vomiting, so early does it appear, and so abundant is the matter ejected, that the sufferers generally, and, I regret to say, physicians occasionally consider the headache as caused by "biliousness;" thus reversing the true order of cause and effect. For a while after vomiting there may be some relief to the suffering.

Toward evening the pain diminishes in intensity, changes its character to a dull general headache, and after a night's sleep the patient awakes quite well; in many cases feeling better than before the attack. Sometimes, however, in gouty subjects, or in women at the menopause, headache more or less typical will endure for two or three days.

It should be added that there are cases in which no nausea or vomiting appears; and patients are disposed to separate these from the category of sick-headache, and speak of them as "nervous headaches." I believe that these two varieties are of the same general kind, —— of the migraine type.

It would be out of place in this short paper to trace out the varieties and transformations of migraine, and I have only said enough of the symptomatology to make it unmistakably clear what are the cases in which the plan of treatment about to be presented is applicable.

The pathology of migraine is one of the most open questions in medicine, and I can only briefly state my

own opinion, reached by a careful study of physiological considerations and clinical data. I believe, with Anstie and many others, that a lesion (at present undemonstrable) exists or occurs in those parts of the pons and medulla oblongata which give origin to the sensory roots of the trigeminus. Various systemic states, and various irritations from the external world, the abdominal organs, the cerebrum, serve to provoke the attacks.

One very potent exciting cause of attacks is mental overwork or anxiety; another generally recognized is that condition of the system in which oxalate of lime appears abundantly and frequently in the urine, and in which uric acid quickly separates from it—in brief, acidity, or a gouty disposition. Indigestion may also be an exciting cause.

Guided by the above pathological and ætiological notions, I have treated migraine by—

1. Treating the patient, and removing all exciting causes.

2. Treating the attacks themselves.

3. Treating the disease, or the supposed fundamental pathological state in the nervous system.

First.—The treatment of the patient consists in removing all relievable exciting causes, and more especially in correcting acidity. For this purpose I employ the ordinary means, viz., giving nitro-muriatic acid and alkalies, and greatly reducing the saccharine and amylaceous foods of the patient. In cases attended by debility, anæmia, and imperfect nutrition, it may be necessary to resort to tonics, including cod-liver oil.

Second.—Treatment of the attack. The first thing to be done, in my opinion, is to place the patient under circumstances which secure quiet and semi-darkness. The attempt to "fight out" a sick-headache is nearly always vain, and may be injurious. It is better not to allow the patient any food, not even liquids, until toward the close of the attack, or even not till next day; by this, nothing is lost, and much wretchedness is avoided. Ice, or ice washed in brandy, is grateful.

If the patient have a warning (aura of migraine) before nausea or pain, much can, I believe, be done to cut short the attack or diminish its severity by the use of guarana, caffeine, or croton chloral hydrate. In my hands, guarana, or the powder of the seeds of *paullinia sorbilis*, has proved very efficacious. I have prescribed the fluid extract of guarana, Caswell & Hazard's Elixir of Paullinia, the French Paullinia powders, and powdered guarana prepared by our druggists, and all of these preparations have in my hands often cut short or prevented attacks, *if given in the early stage of the disorder*.

Of the elixir or fluid extract I give a teaspoonful, to be repeated twice, at an interval of an hour. The powders are administered in twenty or thirty grain doses, also repeated every half-hour or hour. I think that I may report that nearly one-half of my patients have derived great relief from some preparation of guarana, and that in several of them attacks have been absolutely prevented, and they have been enabled to go about on the same day.

Caffeine, in doses of two grains, repeated every hour, until three or four doses have been taken, I have lately employed, upon the recommendation of my friend Dr. Geo. M. Beard, and it has appeared to do good.

Croton chloral hydrate, recently recommended in all neuralgic affections of the head and face, I have recently prescribed in doses of 15 and 20 grains, repeated every hour until four doses are taken or relief obtained. This remedy is to be used more especially in cases where pain is the first symptom, and in other cases if seen when the pain is fully established.

I have no personal experience with the use of large doses of bromide of potassium and of alcoholic stimulants, for the relief of attacks.

Hypodermic injections of morphia and atropia (gr. $\frac{1}{8}$ to $\frac{1}{4}$, and gr. $\frac{1}{60}$) have permanently relieved attacks in a few of my cases; but I am very reluctant to employ this means, so fraught with the danger of the formation of the opium habit. I never allow my patients to take opium or morphia themselves in this disease.

I would add that there is very probably a real ultimate usefulness in shortening or preventing every attack which may threaten to occur during the systematic treatment of the neurosis; we may thus be doing a good deal to interrupt the *morbid habit* which the nervous centres have acquired.

Third.—Treatment of the disease. No treatment of this sort had been tried, to my knowledge, before Dr. Greene made his remarkable researches upon the effect of cannabis indica. Dr. Greene reported cases of many years' standing as having been months and years without attacks while and after taking cannabis indica, and in other extremely bad cases marked reduction in the frequency and severity of the attacks was obtained.

I have said, in the opening page of this small contribution, that I and a few medical friends have used the cannabis treatment ever since Dr. Greene's publication, and with satisfactory results.

The principle of the treatment is to keep the nervous system steadily under a slight influence of cannabis for a long period of time; in other words, we are to employ the "continued dose" of the remedy, as Clarke and Amory say in speaking of the use of bromide of potassium in epilepsy.

I give to adult females one-third of a grain of the alcoholic extract of cannabis indica before each meal, increasing the dose after a few weeks to one-half grain. Males can generally begin with one-half grain, and it is well to give them three-quarters grain in two or three weeks. These doses must be taken with the greatest regularity, just as faithfully and regularly as bromides in epilepsy. Indeed, when beginning such treatment, I usually obtain a promise from the patient that he will regularly take the pills for a period of three months.

As a rule, no appreciable immediate effect is produced by the above doses, though I have known lightness of the head and slight confusion of mind to result from an initial dose of one-half grain three times a day.

Under this apparently and essentially simple plan of treatment, I have known what may be termed excellent results to be obtained. Of course, I do not mean to say that all my patients have been benefited, but, without a statistical table, so difficult to construct from the experience of private practice, I feel certain that about one-half of my cases have been relieved. A few—two or three—after being more than a year without return of their migraine, have passed from under immediate observation. One of these now very rarely has headache, although for several years he has taken no medicine. The majority of patients relieved have obtained months of freedom from attacks while taking the remedy.

I think that we may say of cannabis for migraine that it is nearly as efficacious as the bromides in epilepsy. Both *may* cure, both *do* bring about remarkable interruptions in the series of attacks, both must be employed in the shape of the continued dose.

Cannabis in migraine is less effectual than the bromides in epilepsy, but, on the other hand, it is superior to them in not producing unpleasant or injurious effects.

My friends and former partners, Drs. William H. Draper and Frank P. Kinnicutt, have used the above plan of treatment frequently in the last five years, and their results substantially agree with my own.

Some surprise naturally arises upon seeing so much good done by small doses of a neurotic medicine in a disease so deeply rooted as migraine. Our wonder may never cease respecting the *modus agendi* of the drug—its essential potent action; but its gross and practically interesting effect is very analogous to a well-established acquisition of empirical therapeutics. I refer to the successful employment of belladonna or atropia in epilepsy. This treatment, especially vaunted by Trousseau, is by no means useless, although it is no longer fashionable since the more useful bromide treatment has come into general use. I still, however, employ belladonna in epilepsy in conjunction with the bromides, and this combination sometimes brings about gratifying results.

I may be allowed to briefly mention one illustrative case. When Dr. Brown-Séquard went to Europe in 1875 one of his patients came under my care. She had a bad form of epilepsy, and in spite of the most skilful use of the bromides by her illustrious physician she had been having a fit every two weeks for months. I made little change in the amount of bromides she was taking, merely substituting my own simpler solution for Brown-Séquard's mixture, and gave her one-quarter grain of belladonna three times a day—just enough to keep her throat a little dry. From the very beginning of treatment the epileptic attacks became fewer; intervals of one, three, and fourteen months being obtained. In the present year, owing to the uncontrollable cause of the epilepsy, she has had three or four seizures.

A close parallel may, I think, be drawn between the two diseases, epilepsy and migraine; and between the two remedies, belladonna and cannabis; thus, in my opinion, logically fortifying the proposition advanced upon empirical grounds, that cannabis is useful in the treatment of migraine.

1. Migraine and epilepsy are both nervous affections characterized by the occurrence of periodical attacks; the attacks themselves in both diseases are largely made up of vaso-motor disturbances; in both it is probable that the medulla oblongata is primarily or secondarily diseased; both affections occur in the same families, and may be present at successive times in the same patient. The late Dr. Anstie has expressed the opinion that the two diseases are akin, and states * that migraine may develop into genuine epilepsy. I have in my private case-books cases illustrating this proposition, and I am now treating a physician who states that after nocturnal epilepsy appeared, before beginning bromide treatment, his old migraine grew less frequent and less severe.

2. As regards the two remedies, cannabis and belladonna: both are intoxicants and deliriants; both dilate the pupil, and it is probable that the action of both upon the central nervous system, when administered in the shape of the continued dose, is very similar.

In conclusion, I would earnestly ask the gentlemen who have honored me with their attention this evening, to give the cannabis treatment of true migraine a critical trial.

* The Practitioner, Vol. IX., 1872, p. 356.

Reports of Hospitals.

ST. FRANCIS' HOSPITAL.

AN INTERESTING CASE OF ACUTE ARTICULAR RHEUMATISM—UNUSUAL NUMBER AND SEVERITY OF COMPLICATIONS.

(Reported by GEO. M. EDEBOHLS, M.D., House-Physician.)

KATE MCKAY, æt. 20, single, native of Scotland, domestic, was admitted to St. Francis' Hospital, service of Dr. John H. Ripley, January 19, 1877.

Her family history is unimportant; habits temperate. Has never menstruated, although apparently in the full bloom of womanhood. Up to inception of present illness was never sick in her life, with the exception of some trivial complaint four years ago, which confined her to the house for two or three days. The present attack, attributed by the patient to the influence of cold, began twelve days ago, January 7th. The constant and only symptoms from that date until the day of admission were a moderately severe fever and fugitive pains in various parts of the body, with little evidence of special predilection for the joints.

On admission, complains of severe pain in both knees, which, on examination, however, present nothing abnormal, no swelling, abnormal heat, or redness. Bowels are somewhat loose—five to six passages in twenty-four hours. The tongue is very thickly coated; appetite impaired. Physical examination of the heart and lungs reveals nothing abnormal; respiration, however, is very hurried—forty-two per minute. Pulse 118, small and wiry; morning temperature, 102°; evening temperature, 104½°. Urine acid, with a trace of albumen.

Jan. 21st.—Patient was taken during the night with a sharp, lancinating pain in the right side, much aggravated on deep inspiration. On physical examination, a distinct friction sound is heard over the lower portions of the right lung, anteriorly and posteriorly; there is slight dulness on percussion over the same region anteriorly, and marked dulness, posteriorly, from the ninth rib downward. The needle of a hypodermic syringe was introduced to its full length in this region, and the piston withdrawn. No fluid, however, was obtained until, as the instrument was being slowly drawn out, and but half the length of the needle remained within the chest-wall, a clear serum suddenly rushed in and filled the barrel of the syringe. The explanation was believed to be this: the needle, as it is introduced, traverses successively the chest-wall, the thin layer of fluid contained in the pleural cavity, and the adjoining pulmonary tissue. As long as the point remains in the lung, no fluid can be obtained; when the instrument, however, is withdrawn *slowly*, with its barrel exhausted of air, the fluid will rush in so soon as the point of the needle is again free in the pleural sac. A sudden and rapid jerking out of the instrument, as is often practised, of course will not give the fluid time to enter as the point is traversing it, and negative results are in this way often obtained when the layer of fluid is of only moderate thickness. But to return to the case. The temperature during the day remained steadily at 105–105½°. Ordered:

℞. Tinct. aconiti radic.....gtt. xx.
Tinct. opii camph., spirit. æther nitrosi.....āā ʒ ss.
Liq. ammonii acetat.....ʒ v.
M. ʒ ss. q. 3 h.

Jan. 22d.—Dulness on percussion on the right side extends up to the level of the fourth rib anteriorly, and the angle of the scapula posteriorly. The urgency of the symptoms somewhat diminished as compared with the previous day. Morning temperature, 102½°. In the afternoon the patient was taken with pain in the left side, of the same character as previously in the right. The intensity of all the symptoms at the same time increased. Respiration, 42; pulse, 110, markedly wiry and small; temperature, 105½°. On auscultation, a pleuritic friction sound is heard in the left axillary and infrascapular regions. Urticaria wheals have developed over the entire body since the morning visit. Urine contains 10 per cent. of albumen.

Jan. 23d.—The condition of the patient is growing worse; the temperature has risen to 107¼, and the other symptoms are severe in proportion. In the evening a slight change for the better was noticed.

Jan. 24th.—Physical signs of double pleurisy with effusion. At a point about one inch posterior to left nipple, bronchial breathing, high-pitched inspiration, and a low, creaking friction sound are heard; at no other point are the physical signs of pneumonia present. The patient is greatly prostrated; temperature, 106¼°; respiration, 48; pulse, 112. The face is flushed; the tongue very thickly coated and greenish-black in the centre. Bowels have continued loose since admission, five or six stools, on the average, in twenty-four hours. Ordered two ten-grain doses of quinine to be taken at 6 P.M. and 8 P.M. respectively; stimulants to be administered freely.

Jan. 25th.—The pleuritic effusion is increasing on both sides, and the patient suffers greatly from dyspnœa. The symptoms are beginning to assume a decidedly typhoid character. The body is covered with clammy perspiration; the lips and teeth are thickly coated with sordes; the sensorium is deeply involved, and the memory failing on minor points. A second attack of urticaria, affecting the entire cutaneous surface, adds greatly to the patient's distress. The secretion of urine is almost entirely suppressed; pulse, 118, and very feeble; respiration, 56; temperature, 104°. Ordered, quiniæ sulph. in divided doses at 2 P.M. and 3 P.M.

Jan. 26th.—The general condition of the patient is slightly improved, but the pleuritic effusion continues to make headway, and she suffers much from dyspnœa. To receive five grains of quinine at 4 P.M. and five grains at 6 P.M. Also, ℞. Tinct. digitalis ʒ j., potassii acetat. ʒ ij., aquæ ad ℥ vi. M. ℥ ss. q. 3 h.

Jan. 27th.—The dyspnœa was becoming so excessive that preparations were made to evacuate a portion of the fluid in one or both sides of the chest. As she sat up in bed, however, preliminary to the operation, partial relief was obtained by the change of position, and it was thought advisable to defer operation. Auscultatory examination reveals a double pericardial friction sound over the centre of the heart, and a systolic bruit heard most distinctly at the apex. These, together with moderate ascites and slight œdema of the feet, are new features of the case, none of them having been found to exist on a careful examination made twenty-four hours previously. Microscopical examination of the urine reveals the presence of hyaline, epithelial and granular casts. Pulse, 114; respiration, 37; temperature, 103½°.

Jan. 28th.—The pericardial friction sound is no longer audible; the systolic murmur at the apex is more distinct than yesterday. The pleural exudation is somewhat diminished in quantity, but the ascites and anasarca have increased. The secretion of urine has again become more free.

Jan. 30th.—General symptoms much improved. The pleuritic exudation is still slowly diminishing; the ascites remains stationary. Two different endocardial murmurs, an aortic systolic and a mitral systolic, are audible to-day. The temperature during the day varied between 102⅔° and 103¼°, the lowest average temperature since admission.

Jan. 31st.—The urticaria has reached its fullest development; the temperature has again risen to 104¼. Severe pain is complained of in the joints of the lower extremities, and on examination both knees and the right ankle are found to be in a state of rheumatic inflammation, and moderately distended by effusion. The breathing is rapid,—forty-eight to the minute—labored and quick; pulse, 120, full and strong. It was determined that the rheumatic element, at any rate, be kept under control; so the following prescription was written:

℞. Acid. salicyl.	ʒ ij.
Sodii bicarb.	ʒ iss.
Aquæ.	℥ iv.

M. ℥ ss. q. 2 h.

Feb. 1st.—There is sensible improvement in the various symptoms, subjective and objective. The patient perspired freely during the night. She complains of cough to-day for the first time during her entire illness. Temperature, A.M., 104¼°; P.M., 102¼°.

Feb. 2d.—A loose, rattling cough is the most annoying symptom to-day. On examination of the chest, this is found to be due to a profuse bronchorrhœa consequent upon a very rapid diminution in the quantity of the pleuritic effusion on either side. The patient suffers no pain anywhere. The tongue is moist and quite clean. No movement of the bowels since yesterday. The urticaria has entirely disappeared. Temperature, A.M., 102⅓°; P.M., 101¾°.

Feb. 3d.—The improvement noticed yesterday has been progressive, and the patient to-day feels better than at any time since the beginning of her illness. Temperature, A.M., 101¼°; P.M., 99¾°.

From this day until the patient's discharge from the hospital, the noteworthy occurrences in connection with the case were two slight relapses of the articular affection; a severe cardialgia lasting about a week; and an attack of urticaria affecting the upper extremities. The rheumatic attacks were readily controlled by sodium salicylate; the cardialgia, after having resisted a great variety of remedies, yielded to the application over the præcordia of a plaster prepared by dusting chloral hydrate on the ordinary emplastrum picis Burgundicæ previously spread on a suitable piece of adhesive plaster; the urticaria was of little consequence.

March 15th.—Physical examination of the lungs reveals nothing abnormal. The mitral systolic and aortic systolic murmurs persist, and are the only audiable evidences of remaining mischief. The patient left hospital March 19, 1877.

The following are believed to be interesting features in the history of the case:

1st. The successive occurrence within a week's time of acute inflammation of four serous or fibro-serous membranes. The pleuritis of the right side began on the 21st of January; that of the left side on the day following; and the peri- and endocarditis developed January 27th.

2d. The very probable dependence of these inflammatory affections upon the rheumatic diathesis. There was albuminuria, to be sure; but it was regarded as

concomitant upon the general systemic disturbance, rather than as due to chronic structural lesions of the kidneys. A close investigation of the patient's previous history failed to elicit the occurrence at any time of the symptoms usually met with in cases of chronic nephritis; and a careful daily examination of the urine revealed no evidence of albuminuria subsequently to February 10th, or for more than five weeks before leaving hospital.

3d. The complete remission of the joint affection during the period of greatest intensity of the serous inflammations. From January 21st, on which day the pleuritis of the right side began, until January 31st, four days after the incipiency of the peri- and endocarditis, the patient never experienced the slightest pain in any part of her body, with the exception of the chest.

4th. The absence of cough as a symptom during the occurrence of so many inflammatory affections within the chest. The patient never coughed until February 3d, two weeks after the beginning of the first pleurisy; and the symptom then appeared to be due to a severe bronchorrhœa consequent upon the rapid absorption of the pleuritic exudation.

5th. The occurrence of three attacks of urticaria within two months. The first two were of a severe character, and general, and apparently contributed largely to increase the general disturbance of the system. The third occurred during convalescence, affected only a small portion of the body, and gave no special annoyance.

6th. The marked change in the character of the symptoms, and the immediate inauguration of convalescence following the administration of the sodium salicylate. The pain and fever speedily subsided; the diarrhœa, obstinate before, was checked; the urticaria vanished; the pleuritic effusion rapidly diminished; the albuminuria became less, and soon entirely disappeared. Query: Were these effects due to the influence of the salicylate upon the rheumatic poison, which was considered to be the main etiological factor in the case?

7th. The complete recovery, in a comparatively short space of time, from the effects of a bilateral pleuritis. The pleural inflammation began January 21st; on March 15th, vesicular respiration was everywhere audible over both lungs, showing that the effused fluid was entirely absorbed.

Progress of Medical Science.

The Employment of Anæsthetics in Labor.—M. Piachaud read a paper before the International Medical Congress of Geneva, in which he advanced the following conclusions:

1. The employment of anæsthetics is, as a general rule, advisable in natural labor.

2. The principal substances which have been used for this purpose up to the present time are ether, chloroform, amylene, laudanum, morphia hypodermically, chloral by the mouth and by injection.

3. Of these chloroform seems to be preferable.

4. It should be administered according to the method of Show, that is, in small doses at the beginning of each pain, its administration being suspended during the intervals.

5. It should never be pushed to complete insensibility, but the patient should be held in a state of semi-anæsthesia, so as to produce a diminution of the suffering.

6. The general rule is never to administer chloroform except during the period of expulsion; but in certain cases of nervousness and extreme agitation it is advantageous not to wait for the complete dilatation of the os.

7. Experience has shown that anæsthetics do not arrest the contractions of the uterus or abdominal muscles, but that they weaken the natural resistance of the perineal muscles.

8. The use of anæsthetics has no unpleasant effect on the mind of mother or upon the child.

9. In lessening the suffering, anæsthetics render a great service to those women who dread the pain; they diminish the chances of the nervous crises which are caused during labor by the excess of suffering; they make the recovery more rapid.

10. They are specially useful to calm the great agitation and cerebral excitement which labor often produces in very nervous women.

11. Their employment is indicated in natural cases until the pains are suspended or retarded by the suffering caused by maladies occurring previous to or during labor, and in those cases where irregular and partial contractions occasion internal and sometimes continuous pain, without causing progress of the labor.

12. In a natural labor, chloroform should never be used without the consent of the woman and her family.

M. Courty advocates the use of chloroform. He thinks it indicated when the pains are very great and irregular, or where the patient demands it.

M. Leblond prefers to use the hydrate of chloral.—*Gazette Médicale*, Oct. 20, 1877.

Cerebral Thermometry.—At the meeting of the *Association Française pour l'avancement des Sciences*, on the 30th of August, M. Broca read a paper on "Cerebral Thermometry." He had used six carefully graduated thermometers, one of the sides of the bulb being applied to the skull, while the other side was covered with wool as a protection against atmospheric variations. Two were applied just behind the external orbital apophyses, on each side, two just above the ears, and two over the occiput. With these instruments M. Broca made observations on certain of his *internes* and dressers, who were nearly of the same age, the same intellectual development, and placed in the same circumstances. Each thermometer was left twenty minutes in place. The maximum normal temperature of the brain was found to be 34.85°, (94.70° F.) the minimum 32.80 (91.04 F.), the average being 33.82. But there was a marked difference between the two sides of the cerebrum, the average on the right being 33.90 (93.09° F.), whilst on the left it was slightly above 34 (93.20° F.). If, however, the brain work, if it pass from a state of quietude, the two hemispheres become of the same temperature by means of an elevation on the right. After reading ten minutes, moreover, the temperature of the whole brain mounted from the average 33.82° to 34.23°. There was found to be a difference between the lobes, as the following figures show: Occipital lobe, 32.92°; temporal, 33.72°; frontal, 35.28°. M. Broca believes that these observations will be of value in cerebral diagnosis, especially in embolism, as of the left middle cerebral artery, for example, and its partial or complete blockade, whence he thinks there should result a lowering of temperature in the middle lobe, which is deprived of more or less of its vascular supply, and an elevation in the frontal and occipital lobes, to which the blood will be reflected in increased quan-

tity. Two cases are mentioned. The observations in one are given. A rheumatic patient is suddenly smitten with hemiplegia and aphasia, and thermometric exploration yields these results: On the left frontal lobe, 35.2°; temporal, 34.3°; occipital, 35.6°. On the right frontal, 34.8°; temporal, 34.8°; occipital, 32.9°.—*Progrès Médical*, Sept., 1877.

Filaria Sanguinis Hominis. Mature Form.—After five years' unavailing search for the mature form of the filaria sanguinis hominis, T. Lewis, M.B., has at last seen his labors crowned with success. The specimens, two in number, were found in a blood-clot taken from a nævoid elephantiasis of the scrotum. Both were injured in the preparation, but enough was left to determine that one belonged to the male and the other to the female sex; one contained ova identical in appearance with the free embryo in the blood and tissues, the other contained a tube resembling the spermatic duct of other nematoid blood-worms. The parasite is of a white color; the cuticle smooth, and devoid of transverse markings, except such as are induced by the contraction of the subjacent muscular walls. The female, when filled with ova, measures transversely $\frac{1}{70}$ of an inch; the head is slightly club-shaped, and measures $\frac{1}{800}$ of an inch. The mouth presents no distinctly marked labial subdivisions, nor are any chitonous processes evident. The oral aperture is $\frac{1}{3000}$ of an inch in diameter. The œsophagus is $\frac{1}{65}$ of an inch in length, without any well-pronounced muscular striæ, and shades off gradually into the intestinal tube; the latter measures $\frac{1}{666}$ of an inch across, and is filled with granular and molecular matter. The width of the parasite immediately below the cephalic extremity is $\frac{1}{545}$ of an inch; at junction of œsophagus and intestine $\frac{1}{252}$ of an inch; half an inch lower $\frac{1}{1000}$ of an inch. The ova are enveloped by a delicate pellicle, but possess no distinct shell; their shape depends on the degree of surrounding pressure, and when mature they measure about $\frac{1}{666}$ of an inch in diameter. Mr. Lewis has not seen any indication of reproductive organs, or even any well-defined intestinal tract in the ova he has examined, and agrees with the opinion maintained by Leuckart with regard to embryo-hæmatozoa generally, that they do not advance in development so long as they remain in the blood.—*The Lancet*, Sept. 29, 1877.

Hydropathy and Syphilis.—P. A. Levin (*Eira*, Bd. 1, H. 1) does not claim that hydropathy can replace mercury or iodine preparations in the treatment of syphilis, though he thinks it may often render great assistance when combined with these remedies. The cold and hot water treatment both promote the vital phenomena of that important organ, the skin, and one or the other should always be used, especially when inunctions are employed. The cold water increases the tone of the skin, and thus promotes absorption, while the warm bath increases the excretion through the skin. With the former, therefore, the quantity of ointment rubbed in is utilized to a greater extent than with the latter. This is also shown by the fact that with the simultaneous use of the warm bath, as at Aix, a proportionately greater dose may be used in inunctions without danger than when the cold bath is used. Dr. L. for more than twenty years has used the inunction treatment simultaneously with cold baths and douches, and he has found that he could not apply the gray salve in such large doses without being obliged to suspend the treatment occasionally. In prescribing the various forms of baths, close attention should be paid to the age, condition, and habits of the patient. Cold water is best for young, strong individuals; warm water for older people. Those who are naturally weak or relaxed, or have become so by the improper use of mercury or iodine, should commence with a warm-water treatment, and close with the more or less prolonged use of cold. The cold-water treatment is exceedingly useful for those who are in the chlorotic condition often developed during the repeated outbreaks of syphilis, or in consequence of badly conducted mercurial medication. This is especially true of young persons, but this treatment will often prove useful in those beyond middle age. The greater the age, however, the shorter the treatment, for though the strength at first increases, it is followed later by depression. The water-cure is hurtful in general marasmus. The author has treated several mild cases by the water-cure alone, and though relapses did not occur, we must still bear in mind that some cases get well without any treatment.—*Nordiskt. Med. Arkiv*, Bd. 9, H. 2, 1877.

Tension of the Blood in Epileptic Seizures.—Magnan produced artificial attacks of epilepsy in dogs by injecting the essence of absinthe into the veins, and he then found that in the tonic period of the epileptic seizure arterial tension increased, and the semi-tetanized heart beat with greater frequency. In the clonic period the cardiac pulsations became slower, but afterwards resumed their normal rhythm. These two opposite conditions of the heart cause the admission of two different mechanisms in explaining death occurring during an attack. If death occurs during the tonic period, the cause is cardiac tetanus, which suspends the circulation; if during the clonic period, it is syncope, which produces the same result.—*Lo Spallanzani* and *Gazz. Med. Ital. Lomb.*, No. 40, 1877.

Cases of Intestinal Obstruction, with Remarks on Diagnosis and Treatment. By Sidney Coupland, M.D., and Henry Morris, M.A., M.B.—This paper was based upon an analysis of the cases reported in the records of Middlesex Hospital, and in the Transactions of the Pathological Society, during a period of over thirty years. Alluding to the tendency of fæcal accumulations to set up internal inflammation, and even ulceration, they showed that the cæcum is the point of greatest danger, owing to its peculiar position, receiving the influx from the ileum and the reflux from the strictured gut. On this account, therefore, they strongly advise the performance of *right* colotomy as soon as the diagnosis of stricture is established, thus affording immediate relief to the over-distended cæcum. In cases where the disease is situated above the cæcal valve, they recommend enterotomy as a safer, and a far more effectual means of affording relief to the distended bowel, than acupuncture. In reviewing our means of diagnosticating the seat of stricture, they conclude that when it is above the reach of physical examination, it is necessary to study our statistics of such cases. As, however, the stricture is most frequently in the large intestine, an error as to the precise seat would not affect the operation they recommend.—*British Medical Journal*, Sept. 1, 1877.

Warren Prize.—This prize of the present year has been awarded to E. O. Shakespeare, M.D., of Philadelphia, for an essay on the Healing of Arteries after Ligation. The subject for 1880 will be Original Observations in Physiology, Surgery, and Pathological Anatomy. Essays should be forwarded to the resident physician, Massachusetts General Hospital, Boston, on or before February 1, 1880. The amount of the prize will be $400.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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MEDICAL CERTIFICATES IN THE DAILY PAPERS.

It has often been said that it is a reflection upon the medical profession to have a Code of Ethics; that the very existence of such a set of laws implies a temptation for wrong-doing, and a consequent necessity for discipline. Every medical man is forced to admit the truth of this, but he has some comfort in the thought that to err is human.

The medical, as far as the Code is concerned, is different from any other equally liberal profession. In no other calling is there any system of laws by which the actions of the individual members are governed. This does not, however, prove that there is less necessity for standard rules of conduct and of government either in the clerical or legal profession, but that the profession of medicine is in advance of the others, and is more zealous in preserving its dignity, in developing its own resources, in protecting the rights of its individual members, and in enlarging its sphere of usefulness. The proposition so often made, to dispense with the Code, is certainly far from a reasonable one. The more we see of medical men in their relations to each other and to their profession, the more we are convinced of the necessity of some definite rules to govern their conduct. This is especially so of late years, and the conclusion seems almost irresistible that the moral tone of the profession has very much lowered in that time. To what particular cause this may be due, we are at a loss to determine. We wish barely to allude, in this connection, to the fact that very many of our leading men are doing boldly what they would not think of doing a few years ago. The illustration in point which will occur to every reader is the very objectionable and shameful parade in the daily papers of medical certificates in the advertisements of certain mineral waters. If their example is to be followed, and a new fashion instituted, the dignity and influence of medicine will be at an end, and the public will have no means of distinguishing those whom we would gladly honor, from the unprincipled quacks, whose only concern is to be kept in public view.

Advertising of any and every sort is very properly condemned by the profession. The reason for this is obvious, in that it allows a few to take advantage of the many. There is no intention of preventing physicians from holding intercourse with the public as teachers. In that capacity they can speak for their profession, and help to maintain its dignity, honor, and usefulness; but as soon as they place themselves before the public as practitioners, that moment they lay themselves open to the charge of advertising. It is certainly not educating the public, to certify to the fact that Appolinaris water is "a delightful beverage," or is "far superior to Vichy, Seltzer, or any other;" or "is most grateful and refreshing;" or "is useful and very agreeable;" or "healthful and well suited for dyspepsia;" or "by far the most agreeable alone or mixed with wine, and useful in catarrhs of the stomach or bladder, or in gout;" or "well suited for dyspepsia and cases of acute disease;" or lastly, "is not only a luxury, but a necessity." And yet these very remarkable certificates, with the names and addresses of the writers, appear in the papers all over the country without any open protest being made against it. If these gentlemen are thus doing their duty or elevating their profession in the eyes of the public—educating the people to a proper appreciation of the dignity of a noble calling and the value of medical certificates—it is time that a new Code should be made. As we have previously remarked, the profession is much interested concerning the abstract justice of this method of advertising. There is not so much concern in regard to the individuals, as to the principle of which they are seemingly the willing exponents. If the transgression was made by ordinary medical men, charges would have been preferred; they would be branded as advertisers, their names be omitted from the *Medical Register*, and if non-repentant after a reprimand, they would probably be expelled from their County Society.

Again, in the advertisement of another mineral water—the Hunyadi János—medical certificates from the same gentlemen appear. In reading them, one can hardly escape the conviction that no other laxative should be used; so agreeable, painless and certain is it; in fact, that it is the only one specially "adapted for daily use." Who, now, can blame any reader of a daily paper if he quotes the highest medical authority to prove that this mineral water is better than anything else? Certainly, if these certificates were written to order, they could not help the sale of these proprietary waters more effectually. But the question is not how much of these waters may or may not be sold, but how far is it proper for medical men to publicly recommend their use, as in dyspepsia, catarrhs of

the bladder and stomach, in gout, etc.? At best, this is cheapening medical advice by offering it gratis, by placing a premium on self-medication, by encouraging indiscriminate prescribing, and by lowering the tone and dignity of the profession generally. If these certificates were for circulation among medical practitioners, they would be taken at their real value; but, paraded before the public, they are apt to mislead, and create misapprehension as to the legitimate resources of our materia medica. If there is any excuse for an error in judgment in giving the certificates, there is certainly none for allowing the daily advertisement of their names as medical practitioners in the different daily papers. It is somewhat astonishing, knowing, as they must, that their course was not indorsed by their brethren, these gentlemen should not long ago have withdrawn permission to use their names in any and every daily paper, and thus have vindicated the true dignity and higher instincts of a time-honored profession. But as their case now stands, they have not only failed to do so for many months, but the continual appearance of their names in the public advertisements would seem to defy that discipline which with lesser men would have been swift and certain.

We repeat that the profession is very much interested in this question, and would like to see it settled one way or the other. We have on a previous occasion brought it to the notice of the County Society, and now that its new Committee of Ethics has been appointed, may we not hope that some authoritative decision will be rendered?

THE ENLARGEMENT OF THE MEDICAL RECORD.

With the commencement of the coming year, the Medical Record will be enlarged by four pages of reading matter in each number. This increase seems to be warranted, not only on account of the expansion of the subscription list, but of the extra number of advertising sheets which have been added to the journal. We shall thus be enabled to give to our readers over two hundred pages in the year more than they have been accustomed to receive, and without extra expense to them. With the increased facilities which these additional pages will afford, we hope to make the Record more and more interesting and useful to the general practitioner.

Worms in the Heart.—There has been an alarming epidemic among dogs in China, due to worms in the heart cavities. The left ventricle has been found frequently filled with them. As long as they stay there the animal is considered safe. No cause has been assigned. A very beautiful specimen of this condition is in the museum of the College of Physicians and Surgeons of this city. The heart was sent to the institution from China by a medical missionary and an alumnus.

Cleaning the Streets.—A conference of the heads of several municipal departments met on Tuesday to consider the street-cleaning question, but no conclusion was arrived at.

Reviews and Notices of Books.

Aiken, S. C., as a Health Station.

In a short pamphlet on Aiken (S. C.) as a Health Station, Dr. N. H. Geddings offers a contribution to medical climatology, which, while primarily directed to the purpose of enumerating the advantages of Aiken as a resort for invalids, contains a valuable collation of the climatological statistics of health resorts. The two principal points discussed by Dr. Geddings are temperature and relative humidity, adopting, as concerns the latter, the convenient classification of Vivenot, who denotes atmospheric saturation by 100 per cent., half saturation by 50, and so on, the figures representing the percentage of relative humidity. Vivenot classifies climates where the air contains only from 1 to 55 of moisture as excessively dry; from 55 to 70 as moderately dry; 71 to 85 as moist, and 86 to saturation (100) as excessively moist. As compared with the famous health resorts of the world, the relative humidity of Aiken is only 64.04, while that of St. Remo is 65, Mentone 70, Nice 71, Hyères 58, Cannes 62, Palermo 73, Madeira 73.9, Riviera da Pouente 70. The mean annual temperature of Aiken is 62.70°, the mean summer temperature, 75°; the mean for the spring months, 55°; that of the autumnal, 71°; the winter mean being 48.55°. The author recommends the resort for malarial diseases, gastric catarrh, convalescents from pneumonia and pleuritis, from typhoid fever, syphilis, scarlatina, and whooping-cough, and for scrofulous patients; but not for laryngeal consumption, laryngitis, Bright's disease, eye diseases, or diseases of the nervous system.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Section on Theory and Practice of Medicine.

Stated Meeting, Nov. 20, 1877.

Dr. Gouverneur M. Smith, Chairman.

THE THERAPEUTICS OF MIGRAINE.

Dr. E. C. Seguin read a concise paper upon the above subject (see p. 774). It being before the Section for discussion:

Dr. A. McLane Hamilton remarked that he had given the cannabis indica a fair trial in the treatment of migraine, and had been very much pleased with the results obtained. He was of the opinion, however, that there was an element in each case to be considered before administering any medicine to relieve or remove the paroxysm. He fully agreed with Austie, who regarded migraine as but the primary step which ended in some more extended process affecting the nervous system. It was a condition which was essentially one of lowered vitality. Migraine as well as other forms of neuralgia were very common during such times as the general system was very much depressed, and when the processes of nutrition were taxed severely; for example, at and immediately following the time at which puberty was reached. It was believed to be the most important indication in treatment to build up the general system. Dr. Hamilton had of late tried Dr. Weir Mitchell's rest-treatment with great success.

For the relief of the paroxysm, he favored the use of diffusible stimulants; such as some preparation of ammonia, aromatic spirits in free doses, or muriate of ammonia in doses of 20 to 30 grains. Paullinia might be used, and last but not least, he had used, with very good results, the galvanic current from 15 or 20 cells. That which should be borne in mind, however, was to treat the condition that gave rise to the neuralgia, and fortify the patient by supporting the general strength.

Dr. G. M. Beard remarked that he read the article on the use of cannabis indica in the treatment of migraine when it first appeared in the *Practitioner*, and then resolved to devote himself to experimenting with it for the purpose of determining, if possible, its exact value. He soon had occasion to prescribe for a case of sick-headache, and directed that the patient should take the cannabis indica in one-third grain doses. The case was an obstinate one, and the doctor soon lost sight of it, and at the same time lost his enthusiasm regarding the value of the remedy.

Another reason why he lost his enthusiasm was, because he had been using tonic treatment, mainly central galvanization, but associated with some other remedies, and had realized many good results. It had been his experience also to see very decided and permanently beneficial results follow change in occupation. A trip to Europe for three months might break up the tendency towards having these attacks. It was thought that the tendency of sick-headache was to pass into other forms of nervous disease, or to break up. That might occur at any period of life.

With regard to the treatment of the attack he had had the most satisfactory results from the use of caffeine and muriate of ammonia. Either the citrate or valerianate of caffeine might be employed and administered in two-grain doses at any stage of the attack. The exact size of the dose he had not fully decided upon, but probably a dose of two grains could be taken, and with safety be repeated in twenty minutes.

Dr. Beard thought it hardly true that sick-headache usually came on in the morning, but that it might appear at any time during the day or even in the evening. There were many who woke up in the morning with the headache, but there were many others in whom the attacks appeared in the middle of the forenoon, or in the middle of the afternoon.

A great advantage attending the use of caffeine was the fact that it could be carried and taken by the patient without inconvenience when the headache began to manifest itself. Next to caffeine, Dr. Beard ranked muriate of ammonia in very large doses freely diluted with water. With these two remedies he thought four out of five attacks could be broken up.

With reference to the relation between sick-headache and other nervous diseases, Dr. Beard's views were not exactly in accord with those presented by the author of the paper. He did not think there was any constant relation between migraine and epilepsy, for he had records of fifty cases of migraine without epilepsy. The doctor also believed there were various gradations and shadings of sick-headache which should be considered; all dependent, however, upon the pathology described.

Dr. Hubbard had used paullinia both with and without success.

Dr. Cheesman remarked that in his family sick-headache had been very common, but that none of the members had ever had epilepsy.

Dr. Sell believed that there was a great variety of this disorder, and that each case required its own special treatment. In cases characterized by vomiting he had succeeded in removing the symptoms by the use of paullinia, or bicarbonate of soda with hydrastis canadensis. In the neuralgic form, especially the dental, the hydrate of chloral had served him best. In the melancholic variety, the cannabis indica was indicated, and it might be beneficially modified by being combined with hyoscyamus. For those who suffered from coldness during the attack there was nothing better than nitrite of amyl.

Dr. Hamilton had tried chloral hydrate, and had not found it serviceable in any form of the disease.

In the morning cases he had succeeded not unfrequently in mitigating, if not removing, the symptoms by having the patient take a cup of strong coffee or tea before rising.

Dr. Beard referred to a cause very commonly overlooked, namely, excitement or irritation of the genital organs, sometimes so trifling as scarcely to attract the attention of the patient.

On motion the paper was referred to the Academy, and the Section adjourned.

New Instrument.

A NEW OPEN-EYED NEEDLE.

One of the petty annoyances of a protracted surgical operation is the necessity for threading needles. The quicker and easier this latter is done, the better. In order to give some aid in this direction, I have devised a needle represented in the accompanying cut.

As will be seen, the eye is open, but in a peculiar way, which admits of a loop of thread being easily inserted, at the same time there is little if any danger of its slipping out. Another advantage consists in the projecting shoulder on the front of the eye, which effectually prevents any catching or tearing of the tissues as the needle is drawn through. In my hands it has served every purpose.

Geo. F. Shrady.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 25 to December 1, 1877.

Alexander, R. H., Major and Surgeon. When relieved from duty as Post-Surgeon, Fort Vancouver, W. T., to comply with par. 2, S. O. 220, A. G. O., C. S. S. O. 167, Dept. of the Columbia, Nov. 13, 1877.

Alexander, C. T., Major and Surgeon. Assigned to duty as Post-Surgeon at Fort Vancouver, W. T. S. O. 167, C. S., Dept. of the Columbia.

Notson, W. M., Major and Surgeon. Assigned to duty at Fort McKinney, Wyo. T. S. O. 135, Dept. of the Platte, Nov. 24, 1877.

Cowdrey, S. G., Capt. and Asst. Surgeon. Assigned to duty at Fort Cameron, U. T. S. O. 135, C. S., Dept. of the Platte.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending December 1, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Nov. 24.....	0	12	68	3	29	79	0
Dec. 1.....	0	18	63	2	29	54	0

LOCALIZATION IN CEREBRAL AND SPINAL DISEASES.—Prof. E. C. Seguin will deliver a course of lectures upon the above subject at the College of Physicians and Surgeons, during December and January, Thursdays, at 4 P.M., beginning Dec. 13th.

EXTIRPATION OF THE PREGNANT UTERUS OF THE CAT—RECOVERY OF PATIENT.—Prof. John C. Dalton has lately performed, in a highly successful manner, a very interesting operation upon a pregnant cat. The animal having been sent to him when on the eve of parturition, he anæsthetized it and made a free incision through the abdominal walls with the idea of making the Cæsarian section upon it. When the gravid uterus had been exposed, however, it looked so very inviting that he could not resist the temptation to remove the organ entire with all its contents. This accordingly was done, and all hemorrhage having been efficiently controlled, the external wound was sewed up, and the animal permitted to go in peace. When the uterus was removed from the body an incision was made through its walls and one of the litter of kittens was extracted, while its companions were permitted to remain *in statu quo*. After placing the youthful scion of the feline race in cotton-wool near the fire, Dr. Dalton left the room for a considerable time, and when he returned, what was his surprise to find it meandering about the floor, evidently in search of something wherewith to satisfy the cravings of a newly-developed appetite. Not having a foster-mother for it convenient, however, and also probably being of the opinion that New York was already sufficiently supplied with members of its species, he concluded that he would let it depart this life at an early period in its career; and, accordingly, its existence here was but a very transitory one. The maternal cat, notwithstanding the severe shock to her system, made an excellent recovery, and is now said to be as well as ever. If Dr. Dalton were to repeat any such operations upon the human subject, and with like success, he would soon be as widely known as an obstetric and gynæcological surgeon as he long has been as a physiologist.

A LARGE OYSTER STEW.—If oysters are really serviceable as brain-food, there was probably a remarkable development of cerebral structure among some of the inmates of the hospitals and other public institutions of this city last week. Between fifty and sixty thousand oysters are said to have been put at the disposal of the Commissioners of Charities and Correction for Thanksgiving Day, and they were accordingly distributed by them among the various institutions. Some nine thousand five hundred fell to the share of Bellevue Hospital, and these were served up for supper in the form of one enormous stew; which the warden, Mr. O'Rourke, is no doubt right in claiming as by all odds the largest stew on record.

DR. JAMES T. WHITTAKER, late editor of the Ohio *Clinic*, and Professor of Physiology in the Medical College of Ohio, was on a short visit to this city, and was the recipient of the hospitalities of several prominent physicians here.

PHYSICIAN-DEPUTIES.—Among the Deputies elected to the Corps Legislatif at the late election in France, there are thirty-five physicians. In two departments in which medical men ran, second ballots had to be held, of the results of which we have not yet been informed. Thirty-four of the thirty-five were re-elected to fill seats that they had occupied in the last Assembly. Five physicians, who were candidates for re-election, were defeated. All of those elected are Republicans, with two exceptions; of these two, one is a Legitimist, and the other, Baron Larrey, is a Bonapartist.

PROF. CONNER, of the Medical College of Ohio, has been tendered, and accepted, the Chair of Surgery in the Dartmouth Medical School, at Hanover, N. H., made vacant by the death of Prof. A. B. Crosby.

PRUSSIAN SURGEONS IN ROUMANIA.—At the request of the Princess of Wied, the mother of the Princess of Roumania, leave of absence for three months was granted some time ago to a number of Prussian army surgeons who wished to go to Bucharest. They have as yet, however, been unable to obtain admission to the army hospitals in that city, it is said, because the chief surgeon, who is a Frenchman, refuses to accept their proffered aid. They were asked to go to the front with the troops, and would probably have consented if they had been allowed to rank with the Russian army surgeons. It is probable that they will soon return to Germany, as there does not seem to be any likelihood that they will be able to turn their leave of absence to any further use.

PHILADELPHIA HOSPITAL, PHILADELPHIA.—Prof. Louis H. Duhring has been appointed dermatologist to the Philadelphia Hospital.

MAXIMS OF SUCCESS.—Dr. James Syme used to give his students the following rules to insure success in practice: 1. Never look surprised at anything. 2. Before stating your opinion of a case on your second visit, ascertain whether your previous directions have been complied with. 3. Never ask the same question twice.

LARGE STONE.—Prof. Gross, of Philadelphia, operated recently by the lateral method, removing from a boy aged 12 years, a stone which weighed one ounce and five and three-quarter drachms.

ABUSE OF MEDICAL CHARITIES.—The *Boston Medical and Surgical Journal* misunderstands us when it implies that for the sake of remedying the abuse of medical charities, that we are in favor of closing dispensaries and out-door departments. We are, however, only in favor of decreasing their number to a decent standard, and then managing them in the interests of the deserving poor, rather than for the benefit of the medical schools in want of clinical material.

FRAUDULENT LENSES.—A decided impression has been created in scientific circles in this city, by the discovery that one of our most noted opticians is in the habit of importing from Paris ordinary commercial lenses, remounting them after the English style, and

palming off such inferior productions as lenses of the best makers. The fraud was discovered by one of our microscopic experts, who was called in to evaluate the stand, lenses, and other microscopic appliances, left at the death of a physician of considerable prominence in this city. The stand had the name of a prominent manufacturer. The lenses, supplied by the same house, were duly labelled with the name of a celebrated maker. but, on testing, did not yield the results of genuine Wales glasses. Closer inspection, guided by the peculiar color of the field, when used with a student's lamp burning kerosene, led the expert to suspect that he was dealing with objectives manufactured in Paris, it being a fact familiar to experts that objectives of Vienna, Berlin, Paris, London, or American manufacture, have each their own peculiarities as concerns the tint of the field, by which they can be identified with tolerable certainty. Subsequent inquiry established the fact, that our expert was correct in his induction, and eventuated in the exposure of a fraudulent practice, that has probably been carried out by American opticians for a long time.

A Substitute for the Weber Nasal Douche.—A strong argument against the general usefulness of Weber's nasal douche is pointed out by Dr. Rumbold, of St. Louis, who has studied the subject by both ante- and post-mortem experiments. He found that the superior and posterior portions of the nasal and naso-pharyngeal cavities are never reached by the irrigating fluid, which never rises to a higher level than the lower border of the posterior nasal opening. At the autopsy of a patient who had used the douche for about three months. the last time only about six hours before death, the posterior portion of the superior half of the nasal cavities was found to be incrusted with old and offensive secretions. After observing the inadequacy of the Weber nasal douche, Dr. Rumbold devised an apparatus, which he calls the catheter nasal douche. It consists of a spray-producing apparatus, and a flexible catheter about six inches long, closed at the distal end, and perforated by five small openings three-eighths of an inch apart. This is introduced along the floor of the nose, the openings looking upward, and a coarse spray is thrown out, which, it is claimed, will reach every portion of the irregular surface of the cavity, and make a perfectly efficient and direct local application. The irrigating solution consists of warm salt and water, with the addition of five grains of salicylic acid to the pint, when the secretions are offensive.—*Chic. Med. Jour. and Exam.*, August, 1877.

Bacteria and Eczema.—It is getting to be an even race between eczema and bacteria. Eczema was a library or so ahead at the first of the year, but Lister's fresh start in London has brought the other horse within a few book-shelves of the skin men's entry. By the shades of John Hunter! another description of the germ theory and the antiseptic method pointed at this Othello's breast, and he retires from business.—*Louisville Medical News.*

Linhart.—Dr. Wenzel v. Linhart, the Professor of Didactic and Clinical Surgery in the University of Würzburg, Bavaria, died on the 22d of last October. He was born in 1821, and studied in Vienna, where he was a pupil of Dumreichen. He subsequently became a tutor in the University of Vienna, and in 1856 was called to Würzburg. While still young, he made a name for himself, as an able writer and a skilful operator. He was the author of a work on Operative Surgery, which passed through many editions. He filled the chair of Surgery in Würzburg for over twenty years, and during this period his reputation as an operator of rare skill became world-wide. It is reported that Richard Volkmann will receive the call to Würzburg as his successor.

Number of Teachers in the Prussian Universities.—According to the official figures, the number of teachers in the nine Prussian Universities, the Academy of Münster. and the Lyceum of Brunswick, during the last summer session, was 906. Of these 470 were regular professors. 7 were honorary professors, 202 were assistant professors, and 227 were private tutors. The Protestant theological faculties counted 86 members, the Catholic theological 24, the legal 89, the medical 254, and the philosophical 403. In the University of Berlin alone there were 201 teachers: 63 regular and 57 assistant professors, and 77 private tutors.

Health of the Kars Garrison.—Advices from Kars up to September 15th, state that an epidemic of dysentery broke out among the troops of the garrison during the first half of the month. Typhoid fever remained, however, the predominant disease. Unfortunately the contracts of the majority of the physicians, who had been employed by the Porte, had expired previous to the outbreak of the epidemic, and had not been renewed. The consequence was a dearth of medical men, which was severely felt as the number of sick increased.

Inoculations of Horse-Pox, recently performed in the École vétérinaire of Lyons, produced magnificent cow-pox pustules on cows and also on asses.

Prevalence of Bright's Disease and its Discovery in apparently Healthy Subjects.—At a recent meeting of the Kings Co. Medical Society (N. Y.) B. A. Segur, M.D., read an exhaustive paper on the "Prevalence of Bright's Disease and its Discovery in apparently Healthy Subjects," which will bear a very careful perusal, but, consisting in the main of statistics, cannot be condensed. His two conclusions of practical value are, that a large proportion of deaths, recorded under the names of pneumonia, pleurisy, pericarditis, apoplexy, convulsions, diarrhœa, etc., have Bright's disease for their predisposing cause, and that, while the appearance of albumen in the urine marks an advanced stage of kidney degeneration, the hyaline cast is a very early and important means of diagnosis, as significant in its relation to the kidney as the mucous râle is in its relation to the lung.

Cremation in Switzerland.—The Cremation Society of Zurich has just succeeded in obtaining from the Government permission to practise cremation in the new cemetery in that town. There are certain conditions connected with this permission: 1. Siemens's apparatus, or some improvement of it, must be used. 2. The deceased must have given information of his or her desire to be cremated, by a written, officially certified declaration, made while of sound mind. 3. The body must be carefully examined by the district physician, and as a rule an autopsy must be held, to exclude the possibility of a violent death. 4. Permission for the cremation in each individual case will be obtained from the Prefect of Police, after Sections 2 and 3 have been complied with. 5. The process of cremation must be conducted in such a way as not to interfere with the religious rites of the sect to which the deceased belonged.

Dr. Abel Laflaire, the surgeon-in-chief of the Hospital of Beaune, died recently, at the age of 52 years.

Original Lectures.

CHOREA: ITS ETIOLOGY AND VARIETIES, WITH A NEW TREATMENT.

A CLINICAL LECTURE DELIVERED

BY PROF. HORATIO C. WOOD, JR., M.D.,

AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

(Reported for THE MEDICAL RECORD.)

I BRING before you to-day a case of true hysterical chorea. This woman, ten months ago, had a severe fit, during which she lost all consciousness. Since that time she has suffered from crying spells and constant jerking movements. The movements came on all at once. They have affected her speech, but not her deglutition. She has always slept well, and has had no jerking movements in her sleep. Early in the history of the case one side of her body was entirely paralyzed. There is no palsy at present, however. I can find no adequate cause for the attack. The patient never had a quarrel, was never hurt, and never severely frightened. She has complained frequently of late of the "globus hystericus."

In diagnosticating, the distinction must be drawn carefully between chorea proper and the so-called choreic movements. Hammond's chapter on chorea, in his excellent treatise on "Nervous Diseases," is chaotic. He has confused chorea proper with choreic movements and the *chorea major* of the Germans. These choreic movements must be distinguished from tremors. Tremors are entirely different in appearance from voluntary action; they are tremblings or vibrations of a part, and are of two kinds, constant and occasional. This latter form always attends the attempt to make a movement. Choreic movements are irregular, convulsive actions of voluntary muscles, and often simulate voluntary movements. They are either entirely withdrawn from the sphere of volition, or but little under its control. These movements are of a chronic kind. They may be excited by any attempt at voluntary movement. Not every case of choreic movement is one of chorea. The local choreas are choreic movements, definite spasms located in one part, but not true chorea. Twitchings on one side of the head and face is an example of a local chorea. The local choreas, or choreic movements, are usually incurable. *Chorea major* has no relation with the *chorea minor* of the Germans, or what I really term *true chorea*. *Chorea major* consists of a series of complicated movements occurring at irregular intervals and exactly simulating voluntary acts. Among these may be mentioned the *saltamic* form, in which the patient takes three steps forward and then makes a low bow. This is the result of an entirely uncontrollable impulse. In another form the patient will rise, jump over his chair, and then sit down again as if nothing had happened, or he will rise and run rapidly around the room and then sit down again. I know of one gentleman who is subject to just such attacks of these. Strange to say, he is entirely free from them when he is travelling. These so-called choreas are very rare.

In Europe there have been regular epidemics of what has been described as chorea, at different times. These epidemics have been largely hysterical in their nature, and very often connected with religious excitement. They were most frequent in the middle ages; the so-called "tanzwuth" of central Europe is an example. The entire population of a town would be seized with a "dancing mania." Then there were the "convulsionnaires du Saint-Médard," who had to be absolutely thrown down and trampled upon before the spasms could be stopped. "Tarantulism" of Italy is another instance of the same sort of disease. In this disorder the victims were supposed to have been bitten by a large spider, a species of tarantula, and danced and whirled until they were put to rest by the sound of music, or the total exhaustion of nature. Under the influence of these hysterical epidemics of chorea the strength was enormously increased for the time being, so that weak, frail women had to be beaten with iron bars to bring them out of the controlling influence of the supposed demon. The late "shouting mania," which some years ago broke out in Kentucky among the Presbyterians first, I believe, and then spread to the Baptists and Methodists, is another instance of a widespread hysterical disorder which is often confounded with true chorea (the *chorea minor* of the Germans).

The diagnosis of true chorea is rendered easy by reason of the peculiar jerking movements pathognomonic of the disorder. In the United States, chorea is met with most frequently in the spring of the year, and is usually associated with a depressed state of the nervous system. It is easy to see why it should occur in the spring. The cold weather, privations, and discomforts of the winters in our large cities have a peculiar tendency to pull down the nervous system. "Spring fever" is the visible exponent of this general relaxation and lack of tone. Chorea, too, is a frequent sequela of rheumatic attacks, and rheumatism is, of course, most prevalent in the late winter months.

Complicating chorea there is very often found a functional or organic cardiac murmur. The great difficulty lies in the inability to determine whether the cardiac murmur in choreic children be functional or organic. The cause of this functional murmur lies in the involvement of the valves and muscles of the heart in the choreic movements. The murmur may possibly be anæmic in its nature.

The pathology of chorea is exceedingly obscure. I doubt whether any fixed organic change can be found after death. Some pathologists refer the peculiar symptoms of the disease to the stoppage, by emboli, of the minute arteries of the corpora striata and of the cord. Ninety-nine out of a hundred cases of *chorea minor* are completely cured. This would not be the case if so serious an organic lesion lay at the root of the disease. In the few cases in which the disease has resulted in death, and in which emboli have been found in the cerebral arteries, they probably existed as complications, and not as causes of the disease. In a few fatal cases in which post-mortem examinations were made, in some there was softening of the cerebrum, in some there were minute aneurisms, and in some no morbid conditions whatever could be found.

The etiology of the affection confirms the theory that no serious organic change is possible. A child, in perfect health, is playing out of doors when a thunder-storm comes on; the child takes refuge under a tree; a bush or tree close by is struck by lightning—the child comes home with violent chorea developed. It is hardly possible that an organic lesion could be caused by a sudden fright, and would rather regard the choreas of childhood *as functional neuroses, often associated with a rheumatic diathesis due to the presence of the rheumatic poisons in the blood, together with a lowered state of the nervous system brought on by anæmia, impairing the nutrition of the nerve-centres.* In women, chorea is frequently con-

nected with derangement of the sexual organs, and is closely associated with hysteria. Chorea in adults is a serious affection.

As regards the treatment of true chorea, we must remember that the disease is generally associated with a lowered tone of the system and with anæmia. The three chief indications are good food, proper hygiene, and tonic medication. The food should consist largely of farinaceous articles. Meat is not always the most nutritive of foods. In too large quantities it always throws a great strain on the kidneys. I am convinced that many cases of obscure kidney disease are produced by an excessive meat diet. In addition to the farinaceous foods, abundance of milk should be given. Oatmeal is also useful, but it has a tendency to open the bowels and bring on acid dyspepsia. Candies and tarts should be avoided. Put the patient in the fresh air and warm sunlight. See that he or she is also clothed in flannel from head to foot—not in merino, which is only a homœopathic tissue of wool. Silk is the best article of underclothing, in the form of heavy silk drawers and undershirts; but only the wealthy can afford it.

Among medicinal agents, iron, in the form of the dialyzed preparation, should be given in doses of twenty-five drops at meal-times. If the chorea is attended with loss of appetite, some bitter tonic may be given before meals. The tonic is the basic treatment. The bowels should be kept open without purgation. Of specifics, arsenic, given in the form of Fowler's solution, is one of the most reliable. This drug must never be given at the same time with the dialyzed iron. Fowler's solution should be administered about half an hour after meals, and in daily increasing doses until there is some slight gastric irritation, or perhaps a little puffiness about the eyes—the constitutional symptoms. Cimicifuga, too, is an excellent remedy in chorea, in the form of the fluid extract, or fresh powder. One-half a drachm of the fluid extract may be given to a young child at a dose. With the cimicifuga, arsenic may be administered and bromide of potassium given up to the point of *bromism*. Where these remedies fail, the sulphate or oxide of zinc may be tried. Da Costa's bromide of iron treatment has been given a fair trial in my wards, and has turned out worse than useless.

I have been for the first time trying, in connection with the present case, the drug known as skunk cabbage or dracontium. I am using a saturated tincture of the rhizoma, and am giving from eighty to ninety drops three times a day. I began with sixty drops thrice daily. If you determine ever to make use of this drug, you must not get your supply of it at the drug-stores. You will find plenty of the fresh rhizomas for sale about the markets. The best time to lay in a stock of dracontium is in the fall, and it should be at once made up into the form of a tincture. The root must not be dried before using. The effects of the skunk cabbage are probably due to some volatile principle which it contains. This woman has been taking dracontium for a short time, and is already able to notice a marked improvement of her symptoms. She has less of the jerking movements, and feels altogether vastly better.

It will not be necessary to employ gymnastic exercise, except in severe cases. Some have highly recommended the local application of ice, or of the ether spray, to the whole length of the spine. I have tried these latter modes of treatment, but without any very promising results. They may, however, cure by their action on the mind.

In a few cases, where the symptoms are intensely severe, you want something that will for a short time absolutely put a stop to the movements. The most powerful remedy is chloral given in doses sufficiently large to force sleep. From twenty-five to forty grains of chloral, with one-quarter of a grain of morphine, may be with propriety given. Bromide of potassium is also very useful as a depresso-motor. By subduing in this way the movements, time may be gained for the employment of the arsenic.

Original Communications.

DESQUAMATIVE PROCESSES IN THE EAR.

By ALBERT H. BUCK, M.D.,

NEW YORK,

INSTRUCTOR OF OTOLOGY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK; ONE OF THE AURAL SURGEONS TO THE NEW YORK EYE AND EAR INFIRMARY.

Among the cases of disease of the external auditory canal and middle ear, a few are seen in which the desquamation of epithelium, either from the mucous membrane or from the skin, forms a characteristic and sometimes a very important feature. The older authors speak of it casually under the head of impaction of cerumen in the external auditory canal, and under that of "cholesteatoma" of the tympanum and mastoid antrum. Wendt* and Wreden,† however, have quite recently called special attention to this morbid process in the middle ear and external auditory canal, and have correctly interpreted its significance. Kipp,‡ of Newark, and Blake,§ of Boston, have also reported cases in which the desquamative process was an important feature.

In an ordinary typical case of inflammation of the external auditory canal, a certain amount of desquamation almost always occurs, but as a rule it is slight in amount and not likely to attract any notice. In a few cases, however, the meatus will be found stuffed full of whitish epithelium in the form of flakes or laminæ, thoroughly saturated with the inflammatory exudations of the parts. Such was the case in the following instances:

Case I.—Male, ætat. 15. July 9, 1873. Healthy. Tinnitus and throbbing pain in R. ear since July 4th, immediately after bathing in the river. Examination reveals tenderness on pressure in front of right tragus; meatus filled with a loose mass of whitish epithelium; membrana tympani and cutaneous walls of canal red, swelled, and plastered over with a very whitish, thick layer of epithelium. No perforation found. H. D. W. = R.$-\frac{C}{12}$. Four leeches to be applied in front of tragus.

July 12.—Pain slowly subsiding. Ordered instillation thrice daily of a solution of acetate of lead (gr. ij. — ℥ i. aq.).

July 14.—Entire absence of pain.

July 19.—The parts are still a little red and somewhat swelled. Patient did not subsequently return.

Case II.—Male, ætat. 21. Sept. 17, 1873. Dull sensation and slight deafness in left ear for past two weeks. No pain; no itching; no discharge. H. D.

* Arch. der Heilkunde. Bd. XIV., 1874.

† Arch. of Oph. and Otol., 1874.

‡ Archives of Ophthalmology and Otology, vol. iv. Edited by Drs. Knapp and Moos.

§ Archives of Surgery, New York. Edited by Dr. Bermingham.

W. = L.$\frac{1}{12}$. Walls of external auditory canal and membrana tympani red, swelled, and showing very slight evidences of desquamation. Ordered a two-grain solution of acetate of lead.

Sept. 20.—Swelling has materially diminished. H. D. W. = L.$\frac{4}{12}$.

Sept. 22.—Canal filled with white masses of epithelium. These, when placed in water, show a tendency to break up into rather thick sheets or laminæ. Ordered lead solution to be discontinued, and a two-grain solution of bicarbonate of soda to be used in its stead, with subsequent syringing.

Sept. 27.—No material improvement. Patient did not subsequently return.

In these cases, for some unaccountable reason, the inflammatory process seems to have displayed its chief activity in the production and shedding of epithelium in continuous laminæ of considerable extent. In that form of subacute inflammation of the external auditory canal, to which we usually give the name of eczema, there is also a certain amount of desquamation, but the epithelium is found in the form of much smaller masses or flakes. They are apt, too, to be somewhat discolored by the secretions. In the few cases in which a sufficient amount of epithelium is exfoliated to fill the canal, it will be found that the epithelial flakes are packed loosely in the meatus and can be removed without resorting to a regular mining process. The tendency to a comparatively rapid reformation of the epithelial masses is another feature which distinguishes the eczematous from the simple form of diffuse inflammation of the outer canal. The following case is an instance of what may fairly be called an eczema of the entire external auditory canal (cases of eczema of the orifice alone being very common):

Case III.—Male, ætat. 25. December 13, 1875. Healthy, but suffers frequently from eczema. Increasing deafness during past year. H. D. W. = R. $\frac{1.5}{12}$; L. $\frac{c}{12}$. On inspection both external auditory canals are found to be filled with a dirty-white or yellowish substance, consisting almost entirely of epithelium. Removed with curette and forceps. Walls of meatus red and more or less swelled throughout its entire length. No evidence of eczema on the auricle or at the outer orifice. H. D. W. after removal of epithelium = R. $\frac{8}{12}$; L. $\frac{8}{12}$.

April 30, 1877.—More or less deafness during past two or three months, while in Florida. Precisely same condition as before; same treatment; same result.

Those cases of abundant desquamation, which occur in the course of a more or less acute inflammation of the external auditory canal, might easily lead a superficial observer to look upon the whitish membranous masses as diphtheritic in their nature; and I have no doubt that such an error has more than once been committed. The microscope, however, will always clear up any doubts on a point like this, by showing, in the non-diphtheritic cases, that the membranes are composed of large, flat, well-defined, polygonal, non-nucleated epithelial cells, with here and there a crystal of cholesterine. The body-temperature, too, in these cases, remains normal. The question regarding the presence or absence of the fungous growth (Aspergillus) can of course only be settled by the use of the microscope.

In the external auditory canal the desquamative process is encountered in still another form. As the cases which we have just described (the last excepted) may fairly be classed as *acute*, so those which we are now about to describe may very properly be termed *chronic*. In these cases the patient does not consult a physician until the morbid process has been in existence for several months, or even years. The absence of pain, and the gradual manner in which the impairment of the hearing takes place give the patient no warning of the existence of any trouble in his ear. It is only when the canal is actually full that he becomes conscious that something is wrong in his ear. An examination made under these circumstances simply reveals what seems to be impacted cerumen. It is only after a certain portion of the mass has been removed that the true nature of the obstruction can be recognized. In most cases a central core of cerumen will be found, but in others the entire mass—with the exception, perhaps, of a small portion near the outer orifice—is composed of epithelial sheets arranged (in the peripheral portions, at all events) in the form of concentric lamellæ. The outermost layer is pretty closely adherent to the cutaneous wall of the meatus; very little force, however, is required to separate the exfoliated from the still living, though somewhat inflamed skin. In the vicinity of Shrapnell's membrane, and in the *cul-de-sac* formed by the membrana tympani, on one side, and the anterior and lower wall of the meatus, on the other, this adhesion seems as a rule to be strongest. In most cases the membrana tympani does not seem to participate in the desquamative process; in a few, however, it will be found actively participating in the desquamation.

As instances of this chronic desquamative process in the external auditory canal, the following cases are given in brief outlines:

Case IV.—Male, ætat. 6. November 24, 1874. Scarlet fever three years ago followed by marked deafness, lasting, as the mother says, three or four months. Since then, hearing has been fairly good. No discharge. Both canals stuffed with laminated epithelium and a little cerumen. Foul odor from both ears. After the removal of the epithelial masses, the left membrana tympani was found to be comparatively healthy; the right, fleshy in appearance and much thickened.

Case V.—Male, ætat. 50. Sailor. February 23, 1876. Constant dizziness and almost unbearable tinnitus in both ears "for some time past." Well-marked deafness. A plug of cerumen found in each canal. After the removal of these masses (composed simply of cerumen), it was ascertained that a tough leathery mass of laminated epithelium, grayish in color, covered each membrana tympani to a depth of not less than one millimetre, and completely filled the recess at the inner end of the meatus. The removal of these epithelial deposits was accomplished by means of the probe and forceps (an alkaline solution being used as occasion required), but only after five or six sittings. As the manipulations were necessarily more or less painful, I was obliged to make the sittings of correspondingly short duration. After the removal of the mass, the membrana tympani on both sides was found to be red, somewhat thickened, and adherent in its central portion to the opposite promontory. The dizziness and distressing tinnitus were in a great measure relieved by the removal of the obstruction, and the hearing also improved a little.

Case VI.—Female, ætat. 35. April, 1877. Increasing deafness for "some time past." Of late has suffered greatly from a constant and very distressing tinnitus in both ears; to use her own words, "I believe I shall go crazy, if I cannot obtain relief from these noises in my head." On examination, both canals are found to be filled with tough laminated plugs of epithelium. Several sittings were found necessary

for the complete removal of these masses, which were pretty firmly adherent to the red and somewhat swelled canals. The drum membranes were also found red and moderately swelled. The removal of the offending masses afforded very decided relief, but yet did not entirely remove the tinnitus.

Case VII.—Female, ætat. 41. Nov. 5, 1873. Pain in right ear during past three weeks. H. D. W. = R. $\frac{C}{1/2}$. Examination reveals the presence in the meatus of what seems to be a hard plug of cerumen. Ordered instillations of a solution of bicarbonate of soda (about fifteen grains to the ounce of water), for the purpose of softening the mass.

Nov. 8.—Pain has greatly increased. Patient is unable to move her jaws without causing pain in the region of the ear. While loosening the mass by cautiously introducing a slender probe between it and the walls of the canal, a drop of thick healthy pus made its escape by the side of the plug. After further manipulations with the probe the entire mass was brought away with the forceps, the greater part of it, in fact, in a single piece. A more careful examination of the plug showed it to be composed almost entirely of laminæ of epithelium in a leathery condition. The inner half of the canal was dilated to fully twice its normal size, and the soft parts lining this dilated portion were in a granulating condition. At one point of only slight extent the probe encountered bare bone, not connected with a fistulous track. The *cul-de-sac* of the meatus was also a granulating surface in which no trace of membrana tympani or ossicles could be distinguished. No passage of air through the Eustachian could be effected.

On questioning the patient again, it was ascertained that for certainly twenty years she had been troubled with frequent earaches, and more or less deafness in the right ear. She denies ever having otorrhœa.

Nov. 12.—Entire relief from pain. No appreciable discharge.

Patient did not return afterwards.

It is important, from a therapeutical standpoint, to clearly distinguish these cases of desquamative origin from those in which the impacted mass consists simply or chiefly of cerumen. In the latter case, syringing with warm water will almost always suffice for the removal of the obstructing substance; in the former it will generally be found necessary to resort to the use of instruments. In some cases it will prove advantageous to employ an alkali for the purpose of softening the leathery masses, and thus facilitating their removal. Solutions of bicarbonate of soda of different strengths are generally employed. If an alkaline solution is to be instilled into the meatus, this soda solution is probably as good as any other. A much more effective method, however, is that devised by Dr. Blake, of Boston. It is this: the end of a probe is to be armed with cotton-wool, which is then to be saturated with liquor potassæ and pushed into the centre of the epithelial plug. Wherever this strong alkaline solution comes in contact with the epithelial mass, a pulp is produced, which can readily be syringed out of the ear. The shell or tubular mass which remains can then be more easily removed with the probe and forceps than if its central support were still there.

Sometimes, in these cases of chronic desquamative trouble, an acute inflammation of the canal sets in, and, as a result of the consequent swelling, the outer orifice becomes reduced to very small proportions. Under these circumstances, it is usually a difficult matter to remove the epithelial mass, and yet it is in these very cases that the removal of the mass is most urgently required. With a little patience, however, on the part of the physician, and some pluck on that of the patient, the narrowed orifice may be soon dilated by means of conical silver specula to the size necessary for proper illumination and operative purposes. After the orifice has been sufficiently dilated, the impacted mass should be removed by the process of mining, to which allusion has already been made. Delicacy of touch, steadiness of hand, and good illumination are never of greater service to the aurist than in such an emergency as this. On the other hand, it is hardly necessary for me to add that I do not wish to be understood as advocating the indiscriminate use of instruments in preference to the syringe. Unless he have acquired the necessary skill, the general practitioner should not attempt to use instruments in the external auditory canal; but those who have acquired this skill will, I believe, admit that there are very few occasions in which they find it necessary or desirable to use the syringe for the removal of a foreign substance from the external auditory canal.

When once the offending epithelial plug has been removed, the pain, swelling, and other disagreeable symptoms usually subside in a very short time.

The mucous membrane lining the middle ear, the mastoid antrum, and the mastoid cells may also take on a desquamative action. Thus, for example, it is not a rare occurrence in chronic purulent inflammation of the tympanum to find the mucous membrane of that cavity (the membrana tympani being nearly or quite destroyed) covered with a deposit of white epithelium, of variable thickness, and, as a rule, pretty firmly adherent to the subjacent mucous membrane. Indeed the adhesion is oftentimes so firm that the red and spongy mucous membrane is very apt to bleed when this epithelial coating is removed.

I have not yet seen (except post-mortem) a case such as that described by Dr. Kipp, or like some of those reported by Wendt. The following case, however, belongs very properly among those of middle ear origin, for the exfoliated epithelium undoubtedly was derived from the mucous membrane of the mastoid-cells.

Case VIII.—Male, æt. 25. Frequent earaches and otorrhœa since childhood. Otorrhœa not constant. Pain in left ear during past three weeks. On examination (Oct. 1, 1875), the left meatus was found to be blocked up with a red fleshy mass, which sprang from the upper wall of the canal. The most prominent portion, which looked like ordinary granulation tissue, was removed with the snare, and then it was ascertained that the fleshy mass which blocked the entrance of the external auditory canal was really the prolapsed upper cutaneous wall in which an opening had established itself. A probe introduced into this opening could readily be passed in a distance of fully three-fifths of an inch without encountering at any point denuded bone. Considerable cheesy and very foul pus was removed from the contracted meatus, but no view could be obtained of the deeper parts, owing to the fact that the prolapse of the upper cutaneous wall of the canal extended inward as far, apparently, as to the immediate vicinity of the membrana tympani. As this prolapsed portion could not be lifted back to its natural position, it was evident that some substance (cheesy pus, as I supposed) had accumulated between it and the bony wall. For its removal I adapted a slender nozzle (diam. 1½ mm.) to an ordinary hard rubber ear-syringe, interposing between it and the nozzle of the syringe a short bit of rubber tubing. This slender nozzle was introduced without

any difficulty into the mouth of the sinus, and upon forcing in the warm water it was found that the greater part of it returned by the side of the nozzle, while the rest made its way through the sinus into the deeper parts of the ear, whence it escaped through the meatus proper. This procedure caused the patient not a little pain, and consequently could be repeated only a few times at a sitting. The first time (Oct. 2) almost nothing was brought away by the syringing, but on subsequent days the stream of water regularly brought away fragments of epithelial laminæ of the most perfect whiteness. The bent forceps was also frequently used in dislodging the larger masses, which were too large to pass through the orifice of the sinus except with the aid of some tractile force. On Oct. 10th (the syringe having been used daily in the meantime) the last fragment was dislodged. The total amount of epithelium removed was sufficient to fill a two-drachm bottle (no force being used to pack the substance into small compass). A microscopic examination revealed the presence of a few crystals of cholesterine in addition to the lamellæ of large, polygonal, perfectly transparent, sharply outlined, epithelial cells. From day to day, as the accumulation of epithelium became reduced in quantity, the calibre of the external auditory canal grew steadily larger, until, on the 11th of October, I was able to ascertain pretty accurately by inspection the condition of the middle ear and deeper portion of the meatus. There was at the same time a very perceptible improvement in the hearing. After the last mass of epithelium had been removed, the probe introduced into the sinus encountered roughened bone surface at the point where the posterior wall of the meatus becomes the outer surface of the mastoid process. Further inwards, however, the end of the probe passed over a series of small smooth hummocks, which conveyed to me the impression of being the exposed septa of the mastoid cells (the solid bone composing the posterior and upper wall of the meatus having been destroyed by caries—or possibly by pressure). At the farther end of the sinus, and encroaching slightly upon Shrapnell's membrane, was a second opening (in the cutaneous wall), which communicated with the inner end of the meatus, and was fringed like the outer one with granulation tissue. Upon the removal of the granulations with the snare, the membrana tympani could be seen. It was still entire, but amalgamated at almost every point with the tissues of the inner wall of the tympanum. In the posterior upper portion, and in one or two places below, the membrane was still free. There was no swelling or tenderness over the left mastoid process.

As the patient died soon afterwards (November 1st) from the results of long-standing disease in the right ear (an account of which would here be out of place), I am unable to add further details regarding the complicated condition observed in the left ear.

It is not easy to build up any theory that will satisfactorily explain all the aspects of this unusual case. Originally there was probably a severe inflammation of the middle ear which, not finding a free escape for its products through the membrana tympani—that membrane probably being more resistant than usual—extended to the mastoid cells. From this resulted in course of time a caries of that portion of the mastoid process which forms the posterior and upper wall of the external auditory canal. A fistulous opening then established itself in the cutaneous wall of the canal, and, as it was of small size and probably from time to time became closed for a short time, the accumulating pus from the carious region must have dissected a way for itself in the direction of least resistance, that is, inwards towards Shrapnell's membrane. At this point, too, the cutaneous wall is thinnest, and here it was that a second opening established itself. As the mastoid cells were found to be exposed over quite an extent, without at the same time being carious, a condition which I shall not venture to explain, it is fair to assume that the immense mass of epithelium found in this situation must have been cast off from the mucous membrane lining these cells, cheesy and foul pus having originally supplied the necessary irritating stimulus. The conditions are such in this desquamative process that one is fairly justified in comparing it to a "vicious circle:" the exfoliated epithelium supplies the irritation necessary to the exfoliation of more epithelium.

REPORT OF A CASE OF HYDROPHOBIA.

By OSWALD WARNER, M.D.,

of Paterson, N. J.

On Saturday, Oct. 17, 1877, I was summoned to see John W. Ashworth, aged six years and three months, and on arriving at the house learned the following history: He was a strong, robust child, of healthy parents, very intelligent and forward for his age, and had never been sick but a very few times rendering it necessary to call in a physician. When about two years of age he suffered from convulsions, for which I attended him, but do not now recollect to what cause they were attributed. No other sickness of any severity has ever occurred.

On the evening of September 10th, while in company with other children approaching his own home, a strange dog was observed lying at the door. Childlike, the little boy picked up a stone and threw it at the animal, when he made a spring at the child and caught him by the right cheek, inflicting three small punctured wounds, and immediately ran away and was seen no more.

The same dog was seen by other persons on that day acting strangely, and snapping at other dogs. The boy was taken into the house, and the wounds, which bled freely, were washed by the parents with salt and water, and some simple dressing, or perhaps none at all, applied, and healed kindly in a few days.

During the first week in October he had intermittent fever, for which the parents themselves prescribed. Recovery was rapid, and the child was sent to school.

No unpleasant symptoms of any kind occurred, until Friday morning, October 19th, when he complained of not feeling well, and had a slight fever. He was allowed to remain from school, and was in bed most of the day. The parents, supposing it to be a return of the intermittent fever, administered the same remedies they had previously done, but without benefit.

On Friday evening, quite suddenly, he showed great agitation and nervousness on attempting to drink, exclaiming that he could not drink, that his throat hurt him, and also that he had pain in the epigastrium on any attempt to do so. He was restless and disturbed through the night, with some fever, but took neither food nor drink; and when water was offered to him, he would turn from it with agitation and spasmodic action of the muscles of the throat and face, and exclaim in a fretful, peevish manner, "I can't drink," "I don't want it." During the night, when urinating,

the sound of his own water falling into the vessel produced much agitation. On the morning of Saturday, the 20th inst., a dose of castor-oil was administered, which operated in the afternoon quite freely, but neither food nor drink was taken. He remained all day much in the condition as described, in a somewhat aggravated form, and tried several times during the day, with much persuasion, to take a drink of water; but in every instance, with the spasmodic action of the muscles of the throat, he failed to accomplish it.

On Saturday morning, about 7½ o'clock, I saw him. I found him lying quietly in bed, looking only a little pale, perfectly calm, with skin feeling of about natural temperature, and slightly moist, tongue clean and moist; tonsils slightly red and swollen; perfectly rational, and willing to do anything but drink, and that he persisted in saying he could not do. I persuaded him to try, and with very great effort and spasmodic action of the muscles of the throat and general tremor, he succeeded in swallowing perhaps a teaspoonful of water or tea. Pulse was 120, and rather small and feeble. He complained still of pain in epigastrium, and also said his throat hurt him when he attempted to drink. Ordered a mixture containing gr. iij. of chlorate of potash. and gr. iv. or gr. v. bromide of potasium, to fl. ℥ i. of water, with directions that a teaspoonful be given every one or two hours, according to his condition, with all the milk he could be induced to swallow.

Sunday, Oct. 21st, at 10 A.M., I found him dressed and sitting up in a chair, looking in every way much as the night previous. He was willing, on persuasion, to try to drink, but every effort to do so was accompanied by severe spasmodic action of the muscles of the throat and face, convulsive action extending in some degree to extremities. He chewed and swallowed a lump of sugar or piece of bread with comparative ease, walked across the room several times, but with staggering, trembling and uncertain gait. Treatment continued, with the direction that the medicine be given regularly every hour.

In the afternoon Dr. J. R. Leal visited him with me. We found him in much the same condition, but with occasional paroxysms without any apparent exciting cause, and invariably upon mentioning or showing him water or any other liquid. He would, however, brace himself up nobly, and with a little persuasion make the attempt to drink, but invariably with the same result, viz., the spasmodic action, and without much success. The convulsive action was also produced by the slightest current of air or any sudden touch or movement. Tongue still moist and easily protruded; pulse 120 to 130, small and feeble. Pupils rapidly varied from wide dilatation to moderate contraction without the stimulus of light, to which they very feebly responded. He still swallows solids with much greater ease than liquids, which latter invariably produce the convulsions. The redness about the fauces and tonsils had disappeared. With Dr. Leal's approval, potass. bromide was continued, omitting the chlorate. At 9 P.M., I saw him again. Condition unchanged. Treatment continued.

Monday, Oct. 22d, at 10 A.M., I found him apparently much more quiet. Had had a tolerably quiet night, and slept several hours. Convulsions less severe and less frequent; and patient is able to drink, from a saucer held in his own hands, a few teaspoonfuls of any liquid; also to eat solids in small quantity. At my request, he washed his hands in a basin of water, and wiped his face with a wet towel. This, however, was done with very great effort and extreme tremulousness. Did not see him again that day. Treatment continued.

Tuesday, Oct. 23d, at 8 A.M., I received a summons to see the child as soon as possible, stating that he was much worse. I saw him about 9 A.M., and found all the symptoms very much aggravated. He had slept very little, and was much convulsed during the night. Tongue was becoming very dry, and teeth and lips covered with sordes. Pulse was 140 to 150, and very small and feeble. Almost entirely unconscious and irrational. Speech very indistinct and rambling. Spasms very frequent and severe upon the action of the slightest exciting cause. He was, however, quite easily calmed, and for a short time recognized my voice and answered me rationally. At my request, he sat up in bed and ate a small piece of bread, and drank, from a saucer in his own hands, a few spoonfuls of beef-tea, swallowing with very great difficulty. While supporting him, I chanced to breathe lightly on his face, at which he complained very bitterly, and was thrown into violent convulsions, beginning with the muscles of deglutition and respiration, and extending more or less over the whole body. He had had no evacuation from his bowels since Saturday, when the castor-oil was given. Ordered an enema of soap and water—at least one pint to be given, and repeated if bowels were not readily moved; medicine to be continued by the mouth till bowels were evacuated; then small injections of beef-tea and brandy, with gr. viij. to gr. x. of potass. bromid., to be given every two hours. Eyes were becoming much suffused and injected. At 4 P.M. Dr. Leal again saw him with me, all symptoms growing worse. Pupils largely dilated, and not sensitive to light, but contracting and dilating rapidly, without any apparent cause, always, however, contracting during the convulsion. Injection had been three times repeated, giving in all about one quart, but without effect. He passed urine freely while injection was being administered, and had done so all through his sickness. Injection was repeated while we were present, a full quart being given: but no evacuation followed, and fluid was retained. Spasms almost continuous, and is entirely unable to swallow anything. Pulse 168: teeth and lips covered with sordes; tongue rather dry and dark; no flow of saliva, and very little accumulation of mucus in the throat. Ordered injections of beef-tea, brandy, and potass. bromid. to be given every two hours, and also administered morph. sulph., gr. $\frac{1}{10}$, hypodermically, which in five or ten minutes caused contraction of pupils, and in a very short time lessened the frequency and severity of the convulsions. At 7½ P.M. he was seen by Drs. Rogers, Leal, Marsh, Balleray, and myself, and all concurred that it was a well-marked and well-defined case of hydrophobia. Symptoms were all worse. Unconsciousness almost complete. Still under the influence of morphia, as evinced by contracted pupils. Pulse so feeble that, with the recurrence of convulsions, it was scarcely to be counted, but approximated 170. Respiration 24 to 30, and irregular. Cannot swallow at all, and every effort to do so almost produces suffocation. Injections, beef-tea, brandy, and potass. bromid. continued.

Wednesday, Oct. 24th, at 1 A.M., Dr. T. J. Kane saw him with me. Every symptom aggravated. Convulsions more frequent and severe, and also general. Pupils again dilated and variable. Repeated morphia hypodermically as before, with similar effect. Injections per rectum to be continued. At 10 A.M. I found him very much more quiet; but his mother

stated that he had had a very bad, restless night throughout. He was sufficiently conscious and rational to recognize me and try to answer questions. Pulse 168, with more apparent force and volume. Influence of morphia had passed off, and pupils were again widely dilated. Repeated hypodermic injection of morphia, giving gr. ¼, after which he became very quiet, and convulsions almost entirely ceased. From this time he gradually sank, and died peacefully, without a struggle, at 1½ P.M.

It is worthy of note in this case that many of those symptoms popularly attributed to this disease, such as barking like a dog, snarling, snapping and biting at everybody and everything, and furious delirium, were entirely wanting. This unquestionably was largely and perhaps entirely due to the calmness of the parents, who resignedly accepted the inevitable, and kept themselves free from all excitement, and in a frame of mind to administer intelligently to all the wants of the little sufferer. His age also was such that he was unable to realize the gravity of the disease, with all its attendant horrors.

Progress of Medical Science.

Broadhead on Cerebral Localization. — The following conclusions were given in a paper read before the International Medical Congress at Geneva: 1. Paralysis is a rupture of fibres or cellules presiding over the mechanism of the nervo-motor apparatus. 2. Anæsthesia is a rupture of sensitive mechanism. 3. Tremor is the result of some impediment to the conducting power of the white fibres. 4. Convulsions, (including chorea) result from irritation of gray substance. 5. Premature and transient contracture is connected with pressure on a ganglion. According to this theory, the nervous system is a vast mechanism composed of cellules and fibres. In dismissing the question, Dr. Schiff said he did not believe in motor points in the brain, and that the *rôle* assigned to the corpora striata and optic thalami is not proved by clinical observation.—*Med. Press and Circ.*, Oct. 10, 1877.

The Treatment of Ozæna.— Dr. Rouge, in a paper read at the third meeting of the Congress, arrived at the following conclusions:

1. Ozæna is the result of suppuration in the nasal fossæ or their annexes, viz., the frontal, maxillary, and sphenoidal sinuses, and the ethmoidal cells.

2. The suppuration appears to originate in all cases in disease of the nasal fossæ or their annexes.

3. The degree of fœtor of the air issuing from the nasal fossæ depends on the extent of the osseous lesions which have given rise to the ozœna.

4. The latter is also increased by the stagnation of pus in the sinuses.

5. Should the surgeon fail to trace the disease to some affection of the nasal cavity, he must seek for it in the sinuses and the ethmoidal cells.

6. The local treatment of ozæna comprises:

(*a.*) Frequent washing out of the nasal cavity by means of injections, which vary with the spinal indications of each case. (*b.*) The insufflation of disinfecting, caustic, or astringent powders. (*c.*) Cauterization of various kinds; the use of the galvano-cautery. (*d.*) In severe cases all sequestra must be removed, and the sinuses completely drained. The nose is detached by the sub-labial method; this enables us to explore the nasal fossæ directly, to remove all necrosed portions of bone, and to open the sinuses. The formation of a cicatrix is thus avoided.

7. It is unnecessary to speak of any general mode of treatment, as this must be regulated according to the patient's constitution.

M. Verneuil said he had not applied the method of Dr. Rouge, but he would do so. He remembers that M. Trelat had some good results from it.

Dr. Ollier adopted this method in certain cases.

Dr. Rouge believed that ozæna is generally due to alteration of the sinuses, but more frequently to caries of the ethmoidal cells. Posterior rhinoscopy is not so useful, because the mucous membrane is so swollen that we cannot conveniently discover the diseased parts.—*Med. Press and Circ.*, Oct. 10, 1877.

Chloride of Calcium.—Dr. Robert Bell recommends the chloride of calcium as a therapeutic agent which deserves a more complete recognition than it has of late received from the profession. Having used it extensively for the last four years, and having closely observed its effects, he feels justified in asserting that, in most forms of tubercular disease, and in the wasting diseases of childhood, whether tubercular or not, it is a remedy of inestimable value. It seems to possess a direct influence over assimilation, and Dr. Bell uses it in all cases in which the symptoms show a strict observance of dietetic rules. The remedy was put to a crucial test in the Cambridge Street Orphanage for Girls; here, the majority of the girls, when admitted, showed unmistakable signs of tubercular disease; every case in which the drug was used improved many of them rapidly, and the majority appear to have shaken off the disease entirely. In tubercular disease of the bones and joints of children, and in affections of the cervical glands, due to the same cause, Dr. Bell has never met with its equal. Several cases of pulmonary phthisis treated with this salt gave most gratifying results, especially in the early stages. The only case of tubercular peritonitis that came under Dr. Bell's notice, during the period of observation, yielded completely to the remedy. In conclusion, he says, that, as the medicine requires to be perseveringly used, the physician should not be discouraged by an apparent failure, but should give it a lengthened trial. Muriate of calcium can do no harm to the economy, and in many cases will be of incalculable service. In a communication to the Doctor, Sinclair Coghill speaks in equally high terms of the efficacy of this drug. Well known and highly esteemed up to fifty years ago, it has been completely crowded out by iodine and cod-liver oil. The most convenient form of administration is a solution of the crystals of the salt, in ℥ viij.–xij. of distilled water, of which the dose for an adult is ℥. xx.–l. in milk or syrup.—*Lancet*, Aug. 25, 1877, and *Practitioner*, Aug., 1877.

Errors of the Sphygmograph.—In the *New York Medical Journal* for November, Dr. Edgar Holden draws attention to some of the most frequent causes of error occurring in the use of the sphygmograph. He classifies errors into those of comparison, of observation, and of interpretation. Errors of the first class may arise from comparison of records taken by different instruments, or at different degrees of pressure, or upon different arteries, or at different rates of speed, and may be so great as to vitiate the importance of the observation. Errors of the second class include those arising from carelessness, or from want of proper appreciation of purely physiological

causes, as full meals, fatigue, etc. Errors of interpretation occur when peculiarities of a tracing are not attributed to their proper causes. "A singular and not easily explained error may arise where aortic regurgitation exists. When the heart, under the stimulus of the regurgitant flow, has come into a state of hyperexcitation, the tracing, before exhibiting unmistakable evidence of regurgitation, gives the low, flat-topped record of high arterial tension, the sudden drop of arterial collapse having disappeared. In such a case, proper adaptation of pressure can alone give a correct record." He concludes with the following summary:

1. In all tracings published, the reader should be informed of the prominent features of the case, if one of disease, and if one of supposed health, of the condition as regards meals, exercise, habits, and temperament.

2. The degree of pressure should be stated.

3. The instrument used, and the rate of speed, with the number of pulsations by actual count, should be given, as well also as the name of the artery tried.

4. The greatest care should be exercised, not only to obtain a perfect record, but the particular record which, after several efforts at different pressures, is found to be the true exponent of the condition.

Repeated Excision of the Inferior Dental and Gustatory Nerves for the Cure of Dental Neuralgia.—In a paper read before the Detroit Medical and Library Association, Dr. McGraw relates the following case: The patient suffered from neuralgia of the lower jaw, left side. In February, 1873, Prof. Gross, of Philadelphia, trephined the horizontal portion of the bone and destroyed the nerve. This gave relief for over a year, when the pain returned in the jaw, and made its appearance, for the first time, in the tongue. In June, 1875, Dr. McGraw trephined the ramus of the jaw, and excised about half an inch of the inferior dental and gustatory nerves. After this operation pain remained absent for fourteen months, when it again returned. Acting on the suggestion of Richet, Dr. McGraw then divided the auriculo-temporal nerve, without any effect on the neuralgia. Shortly afterwards he performed the operation recommended by Prof. Gross, and removed the whole of the alveolar process of the left side of lower jaw, with a similar result. Believing that the nerves had become regenerated, he determined to divide them nearer their origins, and to tear them loose from their connections, as is frequently done with such success in neuralgias of traumatic origin. Accordingly, on September 28, 1876, the nerves were laid bare and carefully examined, but without finding any break in their continuity at the seat of the former operation. Powerful traction was then applied in the endeavor to loosen them from their attachments, but in vain, and it was found necessary to cut them, about three-quarters of an inch being removed from each. The wound healed rapidly by granulation, and up to this time there has been no return of the neuralgia.—*Detroit Medical Journal*, November, 1877.

Use of Carbonic Acid Gas at Vichy.—Carbonic acid is employed at Vichy in the form of general and local baths, in douches and injections, and by the stomach. For the general baths ordinary bath-tubs are used, which are simply covered with an impermeable cloth, destined to protect the head. The sittings last from twenty minutes to an hour. In the local baths the affected limbs are simply enclosed in cloth or caoutchouc bags, into which the gas is then introduced. These baths have been used with more or less success, to relieve the pains of gout and rheumatism, of sciatic and other neuralgias, etc. In these cases the gas exerts an analgesic and a diaphoretic action. For douches and injections, the gas is conducted to the diseased parts by means of flexible caoutchouc tubes. These douches and injections have given excellent results in cases of pruritus and spasm, in the different vaginal and uterine neuroses, which are so often the cause of sterility, and in ulceration of the cervix uteri. Most of the cases of simple ulceration of the cervix heal rapidly under the treatment. The injections, however, must be used with some caution, for when the mucous membrane is inflamed and excoriated, a dangerous quantity of the gas may be absorbed by the denuded surfaces. The administration of the gas by the stomach does not seem to be of much use.

The analgesic and cicatrizing properties of carbonic acid have been demonstrated by the experiments of Ingen-Honsz and others. It relieves the pain of a blister almost immediately, and hastens the reformation of the cuticle. When the gas is injected into the the bladder or vagina, a slight sensation of tickling and heat, which radiates towards the abdominal region, is felt at first, but it is soon followed by relief of the hyperæsthesias, and sometimes by complete cessation of the pains. Follin has employed injections of carbonic acid gas in the treatment of cancerous ulcers of the cervix uteri. In two cases they relieved the pains completely and rapidly; in one the relief lasted twenty-four hours, in the other eight days. Of course, the injections had no other influence on the general or local condition. In cases of rheumatic paralysis the carbonic acid baths seem to prove very useful in restoring the power of motion.—*Le Mouvement Médical*, Oct. 20, 1877.

Experiments on the Development of the Tænia Solium in Man.—There has been considerable discussion over the question whether or not the cysticercus of man is identical with the cysticercus of the pig. If it be true that the cysticercus of man is the second phase of development of the tænia solium, the parasite will also be found in its perfect strobiline state in the intestines of man, and in all probability there alone. To settle this point, a M. Redon, of Lyons, swallowed in warm milk four cysts taken from the body of a dead man. As, however, it was possible that these cysticerci had been derived from a tænia carried by some animal with which the man had been in frequent relation, M. Redon also administered a number of the cysts to some sucking pigs and dogs. The pigs all succumbed to enteritis, and at the autopsies the most careful examination failed to reveal any traces of the parasite. The dogs also did not contain any traces of the tape-worms. With M. Redon himself, however, the case was different. After an interval of three months and two days he found links of the worm in his passages. These were examined and found to belong to the tænia solium. Shortly afterwards an entire strobilus was passed, which will be placed in the medical museum at Lyons. These experiments settle the question of the nature and development of the cysticercus of man; they present, moreover, a striking exception to that apparently so absolute rule of the development of the parasites: that the same parasite cannot attain its complete development in the same individual or in two individuals of the same species.—*Gazette Méd. de Paris*, Oct. 20, 1877.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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A MOVEMENT FOR HIGHER CULTURE IN THE MEDICAL PROFESSION.

THE first annual address of the President of the American Academy of Medicine, delivered by Prof. Traill Green, A.M., M.D., etc., of Easton, Penn., at the meeting of the Academy, in this city, in September last, has been printed in a neat pamphlet, which embraces the constitution and by-laws of an organization that, if rightly managed, is destined to exercise a commanding influence upon the culture and *morale* of the medical profession in this country. It is pardonable, therefore, to express in advance the hope that mere collateral issues will not be permitted to divert the attention of the Society from the purpose for which it was formed, namely, "To encourage young men to pursue regular courses of study in classical and scientific institutions before entering upon the study of medicine, and to extend the bounds of medical science, and elevate the profession." As the title and style, "American Academy of Medicine," will be new to many of our readers, it should be premised that the September meeting was its first regular annual session, and that the Society aims to bring those who are alumni of *both classical (or scientific) and medical schools* into closer relations with each other. With this end in view, the constitution prescribes that the fellows of the Academy shall be alumni of respectable institutions of learning, having taken the degrees of A.B. and A.M., in accordance with the usages of such institutions, in addition or preliminary to the degree of Doctor of Medicine, obtained after a regular course of three years in a medical school. An exception is made, however, in favor of candidates from medical colleges that require of their gradnates evidence of preliminary academic study equivalent to a thorough collegiate course, and in favor of those who have pursued systematic courses of study in institutions not entitled to confer the degree of A.B., but whose culture in the classics and the sciences would be sufficient to command the degree after a thorough examination. These are not exactly the terms, although they express the substance of constitutional provisions that aim to exclude from the fellowships of the organization the mass of ignorance and half-culture which overloads the medical profession in this country, lessens its influence, and in a measure defeats the important ends of sanitary and other reform advocated by its most enlightened members. The fact that a considerable percentage of the men engaged in practising medicine are not entitled to be styled either scientific or liberally educated men, is too familiar to the general observer to call for comment. It is, indeed, one of those unpleasant facts that the ablest and most cultivated men in the profession have constantly to deplore, although the best way to correct it is a question that admits of more discussion than is practicable in a medical journal. If all our medical colleges, as is now the case in England, France, and Germany, would concur in making the degree of A.B., or a classical training equivalent to that, one of the conditions of admission to their classes, there would, of course, be no need to initiate such a movement as is represented by the American Academy of Medicine, and the elimination of uneducated practitioners would become a question of one generation only. Direct prescription by legislation, or exclusion from medical associations of the actual graduates of medical schools who have not followed preliminary courses of study, would, again, accomplish the result. But unfortunately, as respects medicine, public sentiment, which controls medical colleges as well as legislation, has not yet been taught to appreciate the importance of a liberal education in training the mental faculties to those habits of exact and logical thinking which are as essential to correct diagnosis, and to the consistent application of remedies, as they are to the resolution of a quadratic equation or to the composition of a sermon. On the contrary, the idea that a little special training in anatomy, physiology, and the materia medica, is all that is necessary to make a successful physician or surgeon, is entertained in circles where the advantages of liberal culture to a clergyman or lawyer are fully conceded. Yet, as Prof. Green argues, physicians, more than clergymen and lawyers, require a cultivation and training of the mental faculties competent to meet and deal with sudden emergencies. The clergyman has leisure to prepare his sermons; the lawyer to examine his authorities; while the medical practitioner has often to determine upon issues of life and death, without premeditation, and actually upon the spur of the moment. The mental alacrity and the command of intellectual resources essential to acquit one's self creditably in such emergencies are not things that come by instinct or by a scanty three years' discipline in a medical school. A barber takes that period of apprenticeship to learn to wield a razor, and scarcely

regards himself as an accomplished tonsor until years of after-practice have trained his hand to a delicacy that was inconceivable to him at the outset of his career.

It is scarcely necessary to expose the absurdity of popular sentiment on this point to a constituency of medical men, most of whom have already arrived at the conclusion expressed by Sir James Martin, at the last meeting of the Irish Medical Association, that unless serious and determined measures are taken to insist upon a higher standard of preliminary education, the standing of the profession, social as well as scientific, must necessarily deteriorate year by year. Those who have the welfare of the profession at heart will, however, on looking over Prof. Green's address, be thankful for the evidences he has furnished that the movement initiated by the American Academy of Medicine is not only a necessary one, but also one as to the necessity of which the ablest physicians in Europe as well as here, are in substantial agreement, although the European standard is far in advance of ours. The importance of the movement is, indeed, evinced by the fact that a recent General Medical Council of Britain, composed of the most eminent British physicians, spent thirteen days in discussing the subject of preliminary and professional examinations. In the course of this debate, Dr. Farr, the medical statist, instanced the fact that "it has become a matter of public concern that it is difficult to supply the vacancies in the army medical staff with competent practitioners." This state of medical incompetence every member of the Council concurred in tracing to the low standard of preliminary education common to students in British medical colleges, although a certain academic training is demanded by all of them.

Dr. Green has brought out *in alto relievo* another point, upon which possibly there might have been some difference of opinion had he not thoroughly collated the evidences that sustain his position. It is, that the medical profession is indebted to physicians of liberal culture for every marked advance that has distinguished its progress since Linacre (1518) was instrumental in establishing the Royal College of Physicians in London. For the data that sustain this position readers must be referred to the address itself, which, as respects this topic, is one of the most creditable examples of professional erudition that have recently been issued in this country, and will subserve the cause of medical learning in a signal manner, if it is successful in convincing the young men of the profession that discoveries are not usually results of happy blundering, or great reputations of a series of fortunate accidents. On the contrary, there is a constant relation between liberal culture (that renders the physician a gentleman and a scholar) and distinguished professional success. Unfortunately, exact statistical information as to the percentage of students in our medical colleges who have had no preliminary training, as compared with the whole number, is not accessible, owing to the fact that literary attainments are not made matters of register. The medical school of Harvard University has probably more than its fair average of students holding academical degrees, and of a recent graduating class there, consisting of sixty-one members, the number was only twenty-seven. Perhaps, considering the exceptionally literary atmosphere of Harvard, no better illustration of the lack of liberal culture in the medical profession in this country could be furnished, nor a more humiliating comment upon its literary standing.

It has not been our purpose in the preceding remarks to follow Prof. Green's argument, or even to justify the movement in which it originated. That justifies itself, and need not assume the apologetic tone. It would be a matter of lasting regret, however, to the more enlightened members of the profession, if such a movement were to languish for want of proper publicity and of sufficient discussion in our medical journals. In this view of the case, as pamphlets are seldom read and generally find their way into obscure pigeon-holes in a doctor's office, particular attention has been called to a few leading propositions by way of enlisting the enthusiasm of those in sympathy with liberal culture, and of piquing the curiosity of the many who are neutral or opposed to it on personal grounds. The latter, of course, will have something to say about medical snobs. But a careful perusal of the pamphlet will convince the average practitioner that the standing of the profession is menaced by the existing method of conferring diplomas upon ploughboys.

CONTAGIOUS DISEASES AND PRIVILEGED TESTIMONY.

A PHYSICIAN of Brooklyn has recently refused to report cases of contagious diseases to the Board of Health of that city, on the ground that such information is privileged. As he wishes to test the legal authority of health boards in regard to the point at issue, he will be prosecuted accordingly. The stand taken is a novel one, and will doubtless bring up many interesting points bearing upon privileged professional testimony. The profession would doubtless like to see many of them settled, but there is little hope that much can be accomplished in that direction by any action based upon such a plea as we have named. The assumption that such testimony is under the circumstances in any legal or moral sense privileged, is absurd upon the face of it. The object of preventing the disclosure of any information acquired in a professional capacity is quite plain. All other things being equal, the patient making any confession to a medical man, which confession is necessary to enable him to prescribe, must on principle be protected. The very term confession implies the recital of facts of a confidential character, the disclosure of

which may be damaging to the confessing party; but "the confession, in order to be protected against disclosure, must relate exclusively to such matters as are indispensable to the professional treatment of the patient. Communications made outside of this sphere acquire no immunity from having been entrusted to physicians, for at common law such are not deemed privileged, and wherever so recognized they are the creatures of statutory enactment" (*Ordronaux's Med. Jurisprudence*, § 121). Necessarily, then, all such communications must be of a lawful character; that is, not against morality, public policy, or public safety. Whenever any of the latter conditions are present, the principle of common law compels the sacrifice of the rights of the individual for the protection and maintenance of those of the majority. Viewed in such a light, the man with a contagious disease has no right, directly of himself or indirectly through his physician, to interfere with any measure calculated for the public safety. The moment a man becomes the victim of a contagious disease—on the principle of sacrificing the lesser to the greater—always a cardinal principle in law—he for the time being loses his personal liberty, becomes a public nuisance, and must for a certain time be taken care of.

Reviews and Notices of Books.

TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. Vol. II. Based on the Proceedings of the Year 1875, and largely supplemented from the Records of 1844 to 1877. Edited by JOHN C. PETERS, M.D., President Medical Society County of N. Y. New York: W. Wood & Co. 1877. 8vo, pp. 291.

THE second volume of the Transactions of the New York Pathological Society comes to us with a rapidity which is surprising even in this age of book-making. In many respects it is superior to the first, not only in the general arrangement of the subjects treated, but in the improvements in their manner and method of presentation which the maturer experience of the editor has enabled him to make. The volume deals largely—in fact, almost wholly—with abdominal lesions, some of which are of the rarest possible kind, while all are of the greatest practical interest to the progressive practitioner and the earnest working pathologist. Almost every disease met with in the abdominal cavity has a counterpart in this volume, while some of the more common ones are presented in comparatively large numbers. For instance, there are detailed 89 cases of perforation of the intestine, 33 of perforation of the appendix vermiformis, 5 of perityphlitis, 35 of intussusception, 21 cases of operations for intussusception, 30 cases of stricture of rectum, 23 cases of imperforate rectum, 13 cases of disease of the pancreas, 12 cases of portal phlebitis. Dr. Peters has excelled himself in the preparation of this volume, and has placed the Society and the profession at large under lasting obligations to him, not only for editing the Transactions, but for presenting what might almost be considered a text-book upon the pathology of the most important and interesting regions of the body.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Nov. 14, 1877.

DR. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

CASE OF CHRONIC ULCERATIONS OF LARYNX IN A PATIENT WITH CATARRHAL PHTHISIS—LARGE GANGRENOUS CAVITY OF RIGHT LUNG—DEATH PROBABLY DUE TO ŒDEMA OF ARY-EPIGLOTTIC FOLDS.

DR. BEVERLEY ROBINSON presented a larynx with the following history:

J. B., æt. 17 years, died in the penitentiary hospital on Blackwell's Island, Nov. 1, 1877. Deceased entered my service seven days previous. At that time he was suffering from almost constant cough, followed by fetid, purulent, and frothy sputa. The dyspnœa was intense, and the inspirations stridulous. The voice was very hoarse, and the patient complained of pain in his throat and a feeling of suffocation. He said he had had sanguinolent expectoration on several occasions, and had been troubled with more or less cough for several years. Patient was very weak, took but a small quantity of food, and had considerable nausea. Temperatures ranged from 100½° Fah. to 103½° Fah. P., 86–96.

Physical examination revealed marked dulness over anterior region of right lung. There were no signs of a cavity at this level, and, indeed, few or no râles. Vocal resonance about normal. No morbid signs were found anywhere in the left lung, beyond a few disseminated bronchial râles. Posteriorly, there was dulness on percussion over the entire right side of the chest, but no other signs of liquid effusion. There were a tolerable number of moist bronchial râles, of medium size throughout, but the usual manifestations of a cavity were not discovered.

My diagnosis was, probable catarrhal pneumonia, having undergone, in places, gangrenous change; old pleuritic adhesions covering a large portion of right lung, and possible incomplete paralysis of abductors of vocal cords. Laryngoscopic examination made two days afterwards showed intense congestion of epiglottis and ary-epiglottic folds. The right vocal cord was seen by one of the house staff to have normal movement, though intensely congested. Left vocal cord could not be recognized, owing to folding of epiglottis upon itself. At 3 A.M., Nov. 1st, interne, Dr. Paine, was sent for, only to find patient dead upon his arrival in ward. It was thought by him that patient died from rapid serous effusion into soft tissues of the ary-epiglottic folds. This belief is apparently justified by the post-mortem record of the Curator, Dr. Spencer.

The autopsy, in the main, confirmed the diagnosis made prior to death, of the nature and extent of the intra-thoracic lesions. "At the base of right upper lobe of lung and upper portion of middle, however, a large gangrenous cavity, partially filled with débris of very offensive odor, was found." The condition of the larynx was as as follows: "The tissues of the epiglottis very lax and curving inward; its mucous membrane just above ventricular bands show numerous small superficial ulcerations. The vocal cords (?) of both sides show œdema, but that of left side more marked, and so much as to almost obliterate sacculus of this side" (Spencer).

Remarks.—The ulcerations of the larynx are evidently catarrhal in nature, and there is, at least to oc-

ular examination, no tubercular deposit. The interest of the specimen relates in great measure to the question, what is laryngeal phthisis? Is it simply the irritation and ulceration of the glands of the larynx resulting from the passage of pulmouary sputa over its surface? Are tubercles at times developed in its tissues?

SHOULD TRACHEOTOMY BE PERFORMED IN ULCERATIVE LARYNGITIS.

If the former belief be the correct one, how far is it justifiable to perform tracheotomy in the earlier stages of ulcerative laryngitis of this nature, as a means of cure? Manifestly, if it be possible to prevent frequent contact of purulent fluids with a surface upon which they have occasioned disease and are still maintaining it, the patient would have a better chance of local cure than if the morbid processus be allowed to run its course without interference. Tracheotomy is our sole means of doing this, as it is the sole means also of preventing incessant action of the vocal cords during respiratory movements and injurious effects of influx of atmospheric air upon a raw membrane in inspiration.

Dr. Flint had never met with a case of laryngeal obstruction causing death, which obstruction was due to phthisis.

Dr. Janeway said that a great deal depended upon what should be considered as phthisis. The views of pathologists had very much altered in regard to this question, from what they were several years ago. For instance, Rindfleish, in his last edition, is very different from what he was five years ago. Then he believed that there was very little of pnre tuberculous disease in existence, but now he has taken an entirely opposite view. The same was true of other pathologists.

Dr. Robinson: There is a great difference of opinion whether pneumonic disease is tuberculous or not.

Dr. Satterthwaite: As to the nature of gray tubercle, as distinguished from anything else, there can be no question, as the microscopical appearances are always uniform.

Dr. Janeway: But in most cases ulceration complicates the original condition, and what was gray tubercle first becomes entirely changed. The death in the cases referred to by Dr. Robinson has been due to lung disease, but not from laryngeal trouble. The latter is so entirely dependent upon the former that all indications for treatment centre themselves accordingly. If the cough were mitigated and the lung trouble cured, the larynx would take care of itself.

Dr. Loomis was inclined to take an opposite view. In his experience, patients with tuberculous disease did very well until laryngeal trouble showed itself. He regarded the latter condition as a very grave and ominous one. Such cases usually break down very rapidly. He believed that tracheotomy would be of great service in such cases, in fact, such an idea had occurred to him more than once.

Dr. Janeway: If there is ulceration of the larynx, tracheotomy will not relieve the difficulty of swallowing. Again, the mere presence of the tube in the trachea, and the irritation caused thereby, is an element which must be taken into account in advising the operation.

Dr. Loomis: The testimony of those who have had experience in the operation is to the effect that it affords relief.

Dr. Flint: As far as my experience goes, the laryngeal complication becomes grave only when associated with difficult deglutition. Aside from this I do not look upon it as an unfavorable event with respect to the duration of the disease.

Dr. Loomis remarked that there were two forms of laryngitis in connection with phthisis, one form which developed at the same time with the disease in the lung, and progressed *pari passu* with it, and which were rapid cases; another form, which commenced as ordinary catarrh of the trachea and bronchi, followed the tubes downwards and eventually developed into phthisis. These go on without laryngeal complication until late in the disease, but with such a complication the end is near.

On motion, Dr. Robinson's specimen was referred to the Microscopical Committee.

ARTHRITIS DEFORMANS IN CHILDREN.

Dr. E. C. Seguin presented two living specimens of chronic rheumatic arthritis (arthritis deformans) in infancy. The family consisted of four children. Of these, three had the disease, one boy and two girls. In all, the disease developed itself from the age of 2½ to 4 years. In none of them were there any symptoms of progressive anchylosis. The disease commenced in the last phalanges, then attacked the second row of joints, and thence to those of the wrist, elbow, and feet. There was no difference in the three histories, and no difference in the appearance of the three children. The parents were free from any disease. There was no assignable cause for the trouble in the children. They were under galvanic treatment, with possibly some slight benefit. The extreme rarity of this condition in infancy constituted the interest in the cases.

Dr. Gibney referred to a case of a boy aged seven years which he had under observation for the past three years. When first seen, every joint in the body was affected with arthritis deformans.

Dr Janeway alluded to a similar case in a female 19 years of age.

EXSECTION OF HIP, WITH APPARENT RECOVERY.

Dr. Mason presented a colored lad, aged 19 years, upon whom he had operated in July, 1876, for morbus coxarius by exsection of the hip. The patient entered the Colored Home, July 7, 1876. He enjoyed perfect health six months ago, when climbing on a hayloft he fell a distance of six feet, striking on his right hip. For three or four days after he suffered considerable pain and swelling in the part, and in three weeks afterwards an abscess formed under Poupart's ligament, and a great deal of pus was evacuated. From that time several spontaneous openings appeared around the joint. At no time was there any pain referred to the knee. July 29th the operation of exsection was performed. The head, neck, and two inches of the shaft of the femur were removed. All the portion of the femur was much enlarged, the head of the bone was necrosed, the acetabulum was diseased and was duly scraped away, and the patient was placed upon Buck's extension. This was all the treatment he had. On Nov. 28th he walked about with crutches, and on the following January walked without them, and since that time he has been employed as an errand-boy at the Colored Home. The shortening was one and a half inches. The lad, to all outside appearances, was perfectly well. He could walk a half a mile without fatigue, flex his thigh upon the pelvis, and bear the whole weight of the body on the limb. But there existed no less than fifteen sinuses, five of which were situated in the gluteal region, and through two of these, at least, bare bone can be reached. In a word, the disease had progressed after the operation,

and yet, generally speaking, the patient was doing so well that any attempt to remove the necrosed tissue was not warranted. The urine was perfectly healthy.

Dr. Gibney stated that he had a case under observation upon which the operation of exsection of the hip had been performed many years ago, and in which with apparent recovery there were still evidences of disease both in the acetabulum and femur.

Dr. Post stated that six years ago he was called to Jersey City to see, in consultation, a boy ten years old, who had disease of the hip-joint in an advanced stage. His thigh was bent upon the trunk at an acute angle so that the knee was almost in contact with the chin, and there was no motion at the hip. The patient was suffering great pain, was very much emaciated, had hectic fever, and altogether seemed to have a very short time to live. He was etherized, and the limb was brought, by a moderate degree of force, down in a very nearly straight position, which was maintained by the weight and pulley. Actual cautery was applied freely behind the trochanter, and the improvement of the patient was very rapid. He was enabled to rest comfortably, his appetite improved, and he was brought to the city about six months afterwards in apparently good health. He had gained twenty pounds in flesh, and the hip being anchylosed in the straight position he was entirely free from deformity.

He spoke of this case in that connection because on the Saturday previous he had an opportunity of seeing the joint removed post mortem. There was perfect anchylosis of the thigh, but the pelvic bones after a lapse of six years were eroded and carious, and eventually caused the death of the patient.

ARTERITIS OF ARTERIES OF ARM AND GANGRENE OF HAND.

Dr. Post then presented the brachial, ulnar, radial, and interosseal arteries removed from a man 58 years of age, who was under his care in the Presbyterian Hospital. He was brought into the institution in a very feeble condition, suffering from spontaneous gangrene involving nearly the whole of the left hand. The disease came on very gradually, and was attended with great emaciation and debility. During the short time he was in the hospital his stomach was in a very irritable condition, and during a portion of the time he vomited almost incessantly. After death it was found that all the arteries of this extremity were thickened and atheromatous, the radial artery being occluded by a clot. In addition to his other disease, the patient had cancer of the stomach, which explained the cause of the vomiting. The plugging in this case was evidently due to arterial thrombosis following arteritis.

Dr. Post presented a tubular sequestrum removed from a patient who had furnished similar specimens to the Society, and who had suffered since the August previous with multiple disease of the bones. The specimen in question was removed from the right os brachii high up, and subsequently to a similar piece of bone having been removed from the same bone lower down. The former piece was tubular in shape, and extended quite up to the head of the bone.

He next exhibited a loose cartilage removed by operation from the theca of the index finger of a young man aged twenty. The point of interest was the unusual size of the growth in that situation.

He next presented exsected joints from the index and middle fingers of the left hand. These joints were removed by operation from a girl, aged fifteen years. Both of her hands had been very badly burned, and during the healing process the fingers in question had become badly anchylosed at an angle which denoted about twenty degrees from the right line, and gave the hand a very awkward appearance. The operation connected the deformity, and the wounds healed without difficulty.

ASPIRATION FOR SUBACUTE PLEURISY—WAS THE PERICARDIUM PUNCTURED?—RELATIVE VALUE OF THE HYPODERMIC NEEDLE AND TROCAR.

Dr. Loomis presented a specimen which was removed from a native of Denmark, aged forty-five years, and which was chiefly of interest in connection with the history of the case. He had led an intemperate life, but said that he had never been sufficiently ill to keep his bed until one week before his admission. He was then seized one afternoon with a severe chill, which was followed by an intense fever, lasting him through the night. He was so far relieved in the morning that he was able to go to his business—that of paper-hanging. During the day he felt ill and weak, and for the first time noticed a pain in his left side. This pain gradually increased; he lost his appetite, and was part of the day in bed, and part of the day sitting up until he came to the hospital, when he began to suffer from difficult breathing. He had a very anxious countenance; temperature, 103° F.; pulse, 120, and feeble; and was unable to lie on the right side. Dr. Wheelock, house-physician, examined his chest, and found evidences of fluid in the left pleural cavity. He also stated that he noticed an expectoration which he thought was pneumonic, but saw only one or two specimens. The second day after his admission, Dr. L. made his first examination, and found the patient with blueness of the lips; breathing rapidly (60 per minute); short, catching respiration; temperature, 102°; pulse, ranging from 120–130, and feeble. On attempting to sit up the lips became bluer. There was loss of motion of the left chest, and abnormal increase of motion of the right chest. There was an entire absence of fremitus over the whole of the left side, above and below. On percussion, there was flatness over the whole of the left chest, extending over to the right of the median line in front. The apex of the heart was found beating to the right of the median line, and feeble; best felt when he was sitting up; was not distinct when lying down. On auscultation, there was entire absence of respiratory murmur over the left chest. The heart-sounds were not distinctly heard in the normal position at the apex. There was a loud and tubular quality of bronchial breathing heard over the whole of the left chest except in front. There were no râles on either side of the chest, and no friction-sound over the precordia.

The diagnosis was made of subacute pleurisy, or, rather, acute pleurisy with a large amount of effusion. The question of pericarditis was raised, but Dr. L. was unable to answer it. Within a day or so after this, as the dyspnœa rapidly increased, and had reason to fear congestion and œdema of the other lung, aspiration was advised. The house-physician introduced a needle in the ordinary position in the infra-scapular space. The needle was passed in two inches, perhaps a little more, and two ounces of blood, which subsequently coagulated, was drawn. The house-physician then ceased any further attempts until Dr. L. should see the patient again. Then aspiration was repeated, and fourteen ounces of fluid were drawn off. The point of aspiration was at the junction of the axilla and infra-scapular spaces. When the fluid ceased to flow, the end of the needle was moved to enable more fluid to flow. The patient was temporarily relieved by the

operation. Soon after, however, the dyspnœa increased, and he finally died on the 27th, apparently from invasion of the opposite lung.

At the autopsy, the pericardium was distended with a serous fluid stained with blood. The visceral and parietal portions of the pericardium presented very easily-recognized appearances of acute pericarditis. The left pleural cavity was filled with a clear fluid. There were one or two points of interest in this case. The first one had reference to the difficulty in diagnosis. This was always the case when there was pericarditis with effusion and pleurisy, with effusion on the left side. The heart-sounds were heard quite distinctly to right, but not to the left or upwards as far as might have been expected with a distended pericardium. The second point of interest referred to the operation of aspiration, and the source of the blood following the operation. Two ounces of coagulable blood do not often follow the introduction of a needle into the lung. The question might arise, Did the needle pass into the pericardium? Without committing himself positively on this point, Dr. Loomis wished to record his objection against the use of needles in aspirating the chest, and expressed his preference for the small trocar and canula.

Dr. Briddon asked if the supposed danger in the use of the needle did not in some measure refer to its size.

Dr. Flint said that he had objected to the needle for several years, for the reason that its sharp point was apt to injure the visceral pleura, to scratch the lung during respiration, or during any miscalculated movement either on the part of the operator or patient. With the trocar canula, however, this objection did not obtain.

Dr. Loomis stated that within the past two or three weeks he had aspirated two or three cases of subacute pleurisy without obtaining any fluid.

Dr. Janeway referred to similar instances, the failure in obtaining fluid being due evidently to an extra thickness of a loose membrane which was pushed before the needle in its entrance, or by flocculi of lymph which plugged up the canal.

Dr. Flint stated that the latter condition was the one which occurred in the first case operated upon by Dr. Bowditch.

GOUTY DEPOSITS.

Dr. Briddon exhibited the metatarso-phalangeal articulation of the great toe, showing gouty deposit. The specimen was removed post-mortem from a medical gentleman who had suffered from gout for the past ten years, and also from hemorrhoids. Finally, the kidney became affected, there was an attack of intercurrent pleuro-pneumonia, then followed a waterlogged condition of the system. From this he partially recovered, when tuberculosis followed, from which he eventually sank. The joint in question presented well-marked deposits upon the articular surfaces, and was a typical specimen of its kind.

PIECE OF LENS CAPSULE REMOVED DURING A CATARACT EXTRACTION.

Dr. H. Knapp said that he had to show a microscopic specimen only which in itself was of no account, but might be of some interest by the manner in which it had been acquired, and the practical hints it might suggest. It was a piece of the anterior capsule of the crystalline lens, two to three lines in extent, and proved, under the miscroscope, to be a perfectly normal capsule lined with its epithelium. It was taken from a very old and decrepit woman. When the extraction of the cataract was completed, the inner part of the section was covered with a thin film of coagulated blood. Though many surgeons were of opinion that such a small quantity of coagulated blood should be left, since it favored agglutination in acting as a kind of cement, Dr. Knapp, not advocating this view, carefully removed it with a pair of delicate forceps, and in doing so extracted the little piece of capsule now on the slide. The recovery of the patient was without any reaction.

Dr. Knapp added that the main danger adhering to the methods of extraction which are combined with an iridectomy, arose from pieces of iris and lens capsule remaining lodged in the wound and causing inflammation. To remove the iris was easy enough, since its intrusion into the section could be more readily detected than that of the capsule, which, on account of its tenuity and transparency, might be invisible. He therefore made it a rule not only to cleanse the wound most carefully with delicate forceps, but to pass a blunt spatula through it in order to push eventual pieces of capsule and iris back into the anterior chamber. To demonstrate the severe reactive processes which were engendered by the imprisonment of capsule in the wound, Dr. Knapp showed the corresponding pictures in *Prof. O. Becker's* and *Drs. Genth* and *H. Pagenstecher's* atlantes of the pathological anatomy of the eye, two recent works of great merit, and of which that of Genth and Pagenstecher, by its superb execution, was an ornament to the medical literature.

New Instrument.

DESCRIPTION OF A NEW INHALER FOR CHLORIDE OF AMMONIUM.

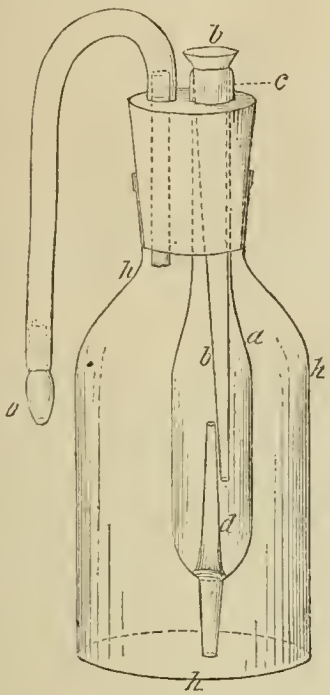
The importance of chloride of ammonium, as a therapeutic agent in the treatment of catarrhal affections was long ago recognized by Profs. Fuchs, Lassègue, Geiseler, Lewin, Elsberg, Cohen and other eminent medical men, but the methods of generating the vapor were so unsatisfactory that they could not be introduced into general practice.

The first real practical method of generating and applying the nascent chloride of ammonium, although attributed to Lewin, was, I think, devised by Prof. Louis Elsberg, of New York. He employed three bottles, two of them having each a tube extending through the stopper to the bottom of the bottle for the admission of air, and a short tube passing simply through the stopper as an exit for the vapor. These exit-tubes were each connected with a long tube extending to the bottom of the third bottle. This bottle had also a short tube passing through the stopper for a mouth-piece.

The first two bottles contained respectively ammonia and muriatic acid, the third water. Suction upon the mouth-piece combined the two vapors in the third bottle. This instrument fulfilled the purpose for which it was designed admirably; the only objection to it was that it was cumbersome, not portable, and could not be prescribed by physicians in general practice. To overcome these objections, several instruments have been devised, having the same principle embodied in one bottle. They are nearly all open to the following objections: the acid-holder is too small, generally holding only a few drops of acid, and having to be replenished every time it is used. The acid-

holder is open, allowing the escape of vapor when not in use, and spilling the acid or mixing it with the ammonia, when tipped or inverted. The current of air during aspiration upon the mouth-piece merely passes into the mouth or over the top of the acid-holder, and does not become impregnated with sufficient vapor to make dense fumes of ammon. chlor. They are easily broken, complex, and difficult to manage.

I have constructed an instrument which obviates all of these objections, being at the same time simple and compact, as will be seen by the accompanying plate and description.



a, acid-holder, having a tubular neck passing through the stopper and provided with a tube, *d*, fixed in the bottom. This tube serves as an outlet for the acid vapor and prevents the mixing of the hydrochloric acid and ammonia. The acid-holder will contain sufficient acid to last for several days, and admits of a small-necked bottle with a tightly fitting rubber stopper, which can be easily removed without danger of breaking the acid-holder or exit-tube; *c*, short piece of rubber tubing stretched over the neck of *a*, for packing; *b*, tube passing through the packing into the acid-holder. This tube can be adjusted at any desired height, where it is held by the packing, or removed for the purpose of emptying the contents of the acid-holder; in connection with the packing it prevents the escape of acid when tipped or inverted, and of vapor when not in use. With this combination the acid-holder is to all intents and purposes hermetically sealed, and may stand for an indefinite period without loss of vapor. The tube *b* serves the double purpose of a funnel for the acid and of directing a current of air against or through the acid when in use. By this means the acid is all utilized, and the current of air passing through the acid-holder thoroughly impregnated with acid vapor, and as dense fumes of chloride of ammonium produced as desired.

To generate chloride of ammonium the acid-holder is filled from ¼ to ½ full of C. P. muriatic acid. The bottle *h* ¼ full of water, to which a sufficient quantity of aqua ammonia is added. Suction upon mouth-piece *o* combines the vapors of ammon. and muriatic acid in *h*. Almost any agent can be used in combination with the chloride of ammonium by adding it to the ammonia sol., or alone by dispensing with the ammonia and acid.

In the treatment of aural catarrh, the Eustachian catheter can be used by attaching it to the flexible tube, and attaching a hand-bellows to a tube without a flange, substituted for *b*, when the vapor can be carried to the desired part.

The hand-bellows can also be used in case of young children, and the vapor simply blown into the face where it must be inhaled.

L. E. Felton, M.D.

Potsdam, N. Y.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Dec. 2 to Dec. 8, 1877.

Waters, W. E., Capt. and Asst. Surgeon. To accompany battalion 2d Arty. from Carlisle B'ks., Pa., to Texas, and on completion of this duty report in person to Comd'g General Dept. of Texas, for assignment. S. O. 246, A. G. O., Dec. 5, 1877.

Loring, L. Y., Capt. and Asst. Surgeon. Leave of absence extended five months. S. O. 243, C. S., A. G. O.

Patzki, J. H., Capt. and Asst. Surgeon. Granted leave of absence for six months with permission to go beyond sea. S. O. 243, A. G. O., Nov. 30, 1877.

Dickson, J. M., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Klamath, Oregon. S. O. 171, Dept. of the Columbia, Nov. 20, 1877.

Turrill, H. S., 1st Lieut. and Asst. Surgeon. Having reported from leave of absence, assigned to duty at these Headquarters. S. O. 201, Dept. of Texas, Nov. 30, 1877.

Hall, W. R., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Stevens, Oregon. S. O. 168, Dept. of the Columbia, Nov. 15, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending December 8, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Dec. 1.....	0	18	63	2	29	54	0
" 8.....	0	10	57	2	33	55	0

Dr. Edward H. Clarke, of Boston, Mass., died Nov. 30th, of cancer of the rectum, in the 57th year of his age. He graduated at Harvard in 1841; at the medical department of University of Penn., in 1846. In 1850 he and others started the Boylston Medical School, and in 1855 he was appointed Professor of

Materia Medica in the Harvard Medical School, which position he held until 1872. He was an interesting and popular writer, but he will be principally known by his essays on Sex in Education, and his paper on Practical Medicine in the Century of American Medicine. He was a very successful lecturer, and had the reputation of making "materia medica interesting."

Military Surgery in Turkey.—The following details will seem incredible to those who are not acquainted with the peculiar ways of the Turkish administration. An artillerist had his knee shattered at Sistova by the explosion of a shell, and after his wound had been temporarily dressed he was transported from the field of battle to Constantinople. In spite of his intense sufferings, he listened with the greatest interest to all the news from the seat of war. On his arrival in Constantinople, amputation was found to be necessary; but before the operation could be performed, permission had to be obtained from the ministry of war. This permission must always be obtained before an amputation can be performed in a Turkish hospital, and it not unfrequently happens that the patient dies before the civil functionaries have ceased deliberating on the demand of the surgeons. Fortunately for our artillerist, his case was pushed through with exceptional rapidity, and the desired permit was given after a delay of only eight or ten days. The brave soldier, who had awaited the pleasure of the administration with the most exemplary patience, bore the operation with heroic courage; there is still hope that his life will be saved.

Hereditability of the White Locks of Hair on the Forehead.—Dr. Rizzoli knew a young girl who had a long, thick lock of perfectly white hair on the forehead, the rest of the hair being a very pronounced black. This anomaly had been congenital and hereditary in the girl's family for two centuries. Whenever it existed in a parent, several of the children were certain to present it. The genealogical tree of the family could be traced back for six generations, including about forty-five persons, more than half of whom presented the white tuft.

An Unhealthy Cellar.—A correspondent of the Massachusetts State Board of Health gives a sketch of the cellar of a house in Hadley, built by a clergyman. It was provided with an open well and sink drain, with its deposit-box in close proximity thereto, affording facility to discharge its gases in the well as the most convenient place. The cellar was used, as country cellars commonly are, for the storage of provisions of every kind, and the windows were never opened. The only escape for the soil moisture and ground air, except that which was absorbed by the drinking water, was through the crevices of the floor into the rooms above. After a few months' residence in the house, the clergyman's wife died of fever. He soon married again, and the second wife also died of fever within a year from the time of marriage. His children were sick. He occupied the house about two years, and was succeeded by a man named B———. His wife was soon taken ill, and barely escaped with her life. A physician then took the house! He married, and his wife soon after died of fever. Another physician took the house, and within a few months came near dying of erysipelas. He deserved it. The house meanwhile received no treatment; the doctors, according to their usual wont, even in their own families, were satisfied to deal with the consequences, and leave the causes to do their worst. Next after the doctors, a school-teacher took the house, and made a few changes "for convenience," apparently, for substantially it remained the same, for he, too, escaped as by the skin of his teeth. Finally, after the foreclosure of many lives, the sickness and fatality of the property became so marked that it became unsalable. When last sold, every sort of prediction was made as to the risk of occupancy; but, by a thorough attention to sanitary conditions, no such risks have been encountered. And this, too, could be matched by a number of city houses which have fallen under our observation. One we knew of on Brooklyn Heights, and not long ago, notorious for its unhealthfulness. *It was built over an old privy vault!* And only a few weeks ago a clergyman, Rev. Mr. Crowthers, and four children, were killed by the pent-up poisonous air of a Brooklyn cellar. Many we know of in both New York and Brooklyn, built in ground filled in with street dirt, ashes and house garbage; palatial some of them are, in both dimensions and appointments; but the leprosy which cleaved unto Gehazi for his too great haste to get rich was not more pertinacious than that which is fastened to these dwelling-places, erected under the same propensities as those which governed him.—*The Sanitarian.*

Statistics of Suicide in France in 1876.—During the year 1876, 4,435 men, and 1,132 women committed suicide in France. In the Department of the Seine alone there were 915 suicides, while the number did not exceed 100 in any of the other departments. Death was caused in 2,472 of the cases by hanging, in 1,514 by drowning, in 893 by firearms, in 407 by the inhalation of the fumes of burning charcoal, in 129 by poison, and in 154 by precipitation from lofty buildings. Thirty-one individuals threw themselves under railroad cars, one fireman threw himself into a furnace, and one man had recourse to castration. Of the suicides, 1,946 were unmarried; 29 were under 16 years of age, and 98 were over 80 years of age; 1,828 were peasants, 1,038 belonged to the working classes, 228 were domestics, 987 belonged to the liberal professions, and 241 were engaged in business. Among the causes which led to the self-murder, the most frequent was drunkenness, which counted 1,433 victims; 798 persons killed themselves because they were afflicted with incurable diseases; 633 on account of domestic troubles, and 320 from dread of poverty.

An Ancient Wine.—H. M. Berthelot recently analyzed the contents of a small glass vase that had been found in the environs of Arles, and belonged to the Museum of Marseilles. The vase consisted of two ampullæ communicating with one another, and it had been sealed by fusion. The capacity of the vessel was about thirty-five cubic centimetres, and it contained about twenty-five cubic centimetres of a yellowish liquid which had a strongly vinous and aromatic smell. Its taste was hot and strong, on account of the presence of alcohol, acid, and aromatic matters. The analysis showed only forty-five cubic centimetres of alcohol, and three grammes of fixed acid to the litre (1,000 c.c.). There were only traces of sugar, a proof that the wine had not been sweetened. This phial of wine was found in an ancient burial-place, and had probably been placed there as a pious offering to the manes of a deceased friend. It is a curious relic of the past, and is especially interesting as affording evidence of the composition of one of the wines manufactured fifteen or sixteen centuries ago.

Original Lectures.

CLINICAL LECTURES.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.

By Prof. T. GAILLARD THOMAS, M.D.

(Reported by P. Brynberg Porter, M.D.)

I. Abdominal Pregnancy, its Diagnosis and Treatment.
II. Injury from Pessaries.
III. Procidentia Uteri.

I.—ABDOMINAL PREGNANCY, DIAGNOSIS AND TREATMENT.

Gentlemen:—The chief interest of the first case which I present to you to-day lies in its history, and to this I invite your careful attention. The patient's name is Eliza R. She is a colored woman, a native of the United States, and twenty-four years old. She has been married four years, and has had one child, but no miscarriages. The child was born within a year after her marriage, and she says she became pregnant a second time about the last of June, 1876. Being acquainted with the evidences of pregnancy by experience, she was not likely to be mistaken, and she tells us that her menses stopped, nausea ensued, the abdomen began to increase in size, the breasts became swollen and secreted milk, and she had longings for unusual things, as had been the case previously when she was pregnant. In October (just a year ago), she says quickening occurred. At first motion was very indistinct, but afterwards became very marked. The child's movements were plainly visible, and there can be no reasonable doubt on this point, as the husband, who is an intelligent man, observed them also.

About the first of April last, labor came on, and you will note that this was the regular time for the normal close of gestation. She had previously engaged a physician to attend her, and also the services of a nurse. She was taken sick on a Sunday, and the pains were weak and rather high up; occurring about every ten or fifteen minutes, as near as she can remember. The doctor came to see her twice that day, and told her that he did not think labor would come on just then. Strange to say, it has not occurred up to the present time. He called again on Monday, and then on Tuesday; and on Tuesday night the pains left her entirely. Since that time her health has been gradually improving, and now she is able to attend to all her duties, and seems quite well.

She comes to us to-day feeling thus; yet there are about her all the appearances of a large abdominal tumor filled with fluid. By palpation the most distinct fluctuation is obtained, and there is every sensation about the mass of a large ovarian cyst. If there had been no history, such as we have heard, I should have undoubtedly pronounced it of this character. In addition to the sense of fluctuation given by it, we find that the percussion-sound is quite flat everywhere over its surface. Placing the patient on the back, I employed conjoined manipulation in order to make out the size, shape, and position of the uterus, and to discover whether there were any growth of any kind connected with it; and ascertained that the uterus lay directly under the tumor, and was somewhat larger than normal. Afterwards the probe was inserted into the uterine cavity, and it was found to measure three inches. Now, what is our diagnosis? Excluding various other conjectures, we have at last to differentiate between two conditions, either of which would account for the presence of an abdominal tumor presenting such characters as have been above described. These are ovarian cyst and abdominal pregnancy. Eighteen months ago a lady was sent to me by a physician of this city whose case was precisely like that of our patient here, with the exception that her general health was depreciating very rapidly. She was suffering from hectic fever, her temperature averaging about 102 degrees, and she presented the appearance of a person in the advanced stages of phthisis or diabetes mellitus. I could make no positive diagnosis, but as the patient gave such a clear history, I at once determined to employ the aspirator, in order that I might be enabled to do so. By means of this instrument I drew off about a gallon of fluid, which was of a sero-purulent character, very much like that seen in empyema, when the formation of pus has not gone on very long in the pleural sac. After the removal of the liquid I found remaining a solid mass of about the size of a fœtus at full term, and had not the slightest difficulty in making out the different parts of the child through the abdominal walls. Believing that an operation offered the only chance of saving the patient's life, I made an incision with the bistoury, and finding the fœtus lying loose in the peritoneal cavity, extracted it by the feet. Curiously enough, there were no peritoneum, intestines, kidneys, or ovaries to be found, for everything was completely plastered over with inflammatory lymph. The child was a male, and weighed seven pounds. After inserting a drainage-tube, I sewed up the wound, and from that time the patient began to improve, until she eventually became entirely well. A short time ago she called to see me, and I utterly failed to recognize her, so robust had her health become. I have related this case to illustrate the one now before us. The question is, whether we have to deal with an ovarian tumor or abdominal pregnancy, and I would caution you not to confound the latter with tubal pregnancy. I have not the slightest doubt in my own mind that the second of these two conditions is present, but I will not be able to determine it positively to-day, for the reason that the patient resides out of the city, and as it is necessary for her to return home immediately, it will be impossible to make use of the aspirator on this occasion. One very valuable point in the diagnosis of pregnancy, you know, is the recognition of the body of the fœtus floating in the liquor amnii. But here the trouble is that there is entirely too much fluid, which we may call pseudo liquor amnii. We cannot, therefore, decide positively in such a case until we have drawn off a portion, at least, of this; but with the aid of the aspirator we could arrive at a certain diagnosis in a few minutes, since it would enable us to feel distinctly the head, trunk, and limbs of a fœtus, if one were present. Circumstances, however, will not admit of its use to-day, as I have just explained.

There is one unfortunate point about this case, and that is of a moral nature, viz., the patient is fully convinced that she is getting well; and it will be no easy matter to persuade her that she is really in great danger. Suppose, first, that she has an ovarian cyst. The ordinary course of this affection takes about three years, and then the patient dies, unless something is done for getting rid of it. If, on the other hand, the case is one of abdominal pregnancy, the presence of the fœtus will change the character of the peritoneal

fluid, so that, instead of being bland and innocuous, like that seen in ascites, it will become a source of contamination and death. An immense abscess, a huge mass of pus, will be found; and if suppuration once occurs, the chances will be all against our patient. If, however, an operation should be undertaken now, the prospect would be decidedly favorable; for the chances would be as good at least as in the case of the removal of an ordinary ovarian tumor. There is one point about the operation which I wish to particularly impress upon you, and that is, not to remove the placenta in such cases as this. Why not? Because your patient would probably bleed to death if you did. In the case in which I operated, as I have described to you, I found the placenta, but I left it *in situ*. By means of the drainage-tube a way was provided for its gradual coming away. In abdominal pregnancy the case is very different from that of natural utero-gestation, where, after the removal of the fœtus, living ligatures are supplied for the bleeding vessels by the contraction of the uterus. In another case of extra-uterine pregnancy in which I operated I nearly lost my patient from hemorrhage, because I attempted to remove the placenta. This was one where the product of conception had become developed in the Fallopian tube, and I made the incision through the walls of the vagina. When the placenta was almost half detached, the patient was so exhausted by a sudden and profuse gush of blood, that the gentleman who was assisting me exclaimed that she was already dead. She rallied, however; but on the fourth day afterwards my assistant found that her temperature was 104 degrees, and on making an examination, discovered a part of the placenta in the tube which had been left in the sac. Through it he succeeded in removing the whole mass, and after that the patient made a good recovery.

A number of years ago, a country doctor practising on the island of Edisto, off the coast of South Carolina, on being called to a case of labor, found the child's head pressing upon the vaginal wall, outside of the uterus, and recognized it as a case of abdominal pregnancy. Cutting through the intervening tissues with the knife, he applied the obstetric forceps, and delivered a living child, and the mother afterwards recovered. This is one of the few cases of this character on record in which the child has been born alive. Within the last three years, in England, another living child was delivered by means of an abdominal incision. In the present case, however, it is unfortunately too late to hope for like success. The fœtus probably died about the time that the so-called labor took place. Why it should have done so I am at a loss to say, but this is the ordinary rule in such cases. In the one where I operated the fœtus died at eight months, and the cause of its death was a very curious one. A long hair was found wound tightly around the umbilical cord. It was probably a giant hair which had grown upon the head of the child, though, strange to say, its scalp seemed remarkably free from hair. If left to herself, I am quite sure that this patient would not come near us again, but as she was sent here by a medical friend, who has charge of her in the town where she resides, I trust that he will be able to persuade her to submit to an operation. At all events, we will be enabled to keep track of the case.

II.—A CASE OF INJURY FROM PESSARY.

Mrs. Frederika S——, aged thirty-six, and a native of Germany. Has been married six years, and has had two children, but no miscarriages. The last child was born a year ago. She says that she was well up to a few months ago, since which time "her womb has been trombling her," and that two months ago a supporter was put in by a physician. To-day she came here suffering intensely from pain in the back, abdomen, and limbs, and with a very profuse and offensive purulent discharge, like that of acute gonorrhœa, pouring from the vagina. On making an examination, I found in her vagina the anteversion pessary I now show you, which has a movable arm, and is called mine, but which I have long since discarded. Even if I still did use an instrument of this construction, I should never think of introducing one of the extremely large size of that taken from our patient. Now, I want to put you on your guard against the improper or careless use of pessaries, and particularly those designed for the relief of anteversion; and the present case will serve as a good commentary upon this remark. A two months' sojourn of the pessary in the body has resulted in completely cutting through the vagina. It was found deeply imbedded in the walls of the latter, and could only be removed with considerable difficulty. Great furrows were found at the points where the instrument pressed, and the bladder itself was nearly cut through in one place. The points that I desire to make here are these:

(1) Always put in a pessary that is perfectly movable when it has been adjusted, or it will undoubtedly cut into or through the vagina.

(2) Never leave any anteversion pessary in the vagina for two months at a time.

(3) Never introduce any kind of a pessary which the patient cannot take out herself. She should always be instructed as to the way of doing this, or else pelvic cellulitis or other serious trouble may possibly be set up before she applies for medical aid.

There are two other points in connection with this case to which I will direct your attention before dismissing it. The first is—anteversion pessaries are much more apt to give rise to trouble than retroversion instruments. In one month longer this patient would probably have died if the pessary had not been removed. Cellulitis seemed to be just about commencing, and if she had not suffered from this, vesico-vaginal fistula would, no doubt, have occurred. Such a result might occasion a great deal of trouble, not only in the way of treatment, but also from a medico-legal point of view; for your patient might fall into the hands of an unfriendly practitioner, who would incite her to seek redress at a court of law. Still more awkward might be your position if there should be a fatal issue to the case. The second point is—when you are called upon to remove a pessary, and find that it has cut through the vaginal walls, never make any reflection upon the physician who introduced it. In case you do, the tables may be turned upon you at no distant date, for these accidents may occur at any time to even the most careful men in the profession. For instance, you may tell your patient to come back to you in one week, warning her of the danger which may result from neglecting to do so; and yet you may see or hear nothing more of her for a year, when you are perhaps informed of the injury which your pessary has done her. Very likely the condition of affairs which we have found in the present case has resulted in this manner. The same remark holds good in regard to almost any sort of a contrivance, however extravagant, which you may find about a patient's vagina.

III.—PROCIDENTIA UTERI.

Mrs. Margaret M——, a widow, fifty-five years of

age, and a native of Ireland. She has had six children, but no miscarriages. The last child was born thirteen years ago, and her husband has been dead for five years. She says that she enjoyed good health up to one year ago, when she began to have a little soreness across her. This is all that she complains of, except that she mentions rather incidentally that her womb comes out. Now, the extraordinary thing about this case is, that with almost absolutely no symptoms, the uterus is completely out of the vagina. Even the fundus may be considered practically out of the body. In contrast to this, a woman may have an apparently slight flexure of the uterus, and yet suffer intensely with a fixed pain in the back, dysmenorrhœa, hysteria, and all sorts of complaints, on account of the interference thus caused to the circulation. This woman is now suffering from complete prolapsus of the uterus; but, contrary to the usual rule, she has had but little trouble before the organ reached this stage. In the first stage of prolapsus the patient ordinarily suffers intensely, and is scarcely able to walk, on account of the tension upon the uterine ligaments. In the second stage she has still considerable suffering, though not so much as before; but in the third stage there is usually no pain whatever, because the uterine ligaments, as a result of the long-continued traction upon them, have been completely worn out, and can now make no further resistance.

On making an examination in this case, we find that the bladder and rectum have both been pulled out of the body with the prolapsed uterus. The latter organ is not large, having undergone the atrophy which always follows the menopause; but there is an extensive laceration of the cervix. The history of the case has been, no doubt, somewhat as follows: When the last child was born, the head caused the rupture of the cervix, and afterwards tore away almost the entire perineum. After the labor was over, retrograde metamorphosis was interfered with in the uterus by the injury to the cervix, and subinvolution resulted. As a result of the rupture of the perineum, there was also subinvolution of the vagina, and on account of this removal of the triangular perineal body, the shape of the posterior wall of the vagina was changed from that of the letter C to that of the letter S. In the normal condition of the parts the posterior wall, by means of the tissues beneath it, resting upon the firm coccyx, forms a strong spring, as it were, shaped like those of the old-fashioned coach, for the support of the uterus and the anterior wall, which, with the bladder, ordinarily presses directly upon it. Accordingly, after the removal of the perineal body, the lower part of the S acted inversely to the upper part, and the uterus, enlarged and heavy, began gradually to descend, its prolapse being accelerated by the pressure of coughing, defecations, and other actions. Then the bladder, having nothing to rest upon, also began to descend. But the uterus and vagina were falling down not only on account of their own increased weight, but also by that of the fæces which accumulated in the pouch formed by the anterior wall of the rectum, slipping down with the posterior wall of the vagina. After a time it became impossible to completely evacuate the bladder either, on account of its having descended with the anterior wall of the vagina; and then ammoniacal degeneration of the residual urine took place, giving rise to continual irritation, and causing still further trouble by the straining which it occasioned in the effort to void it. It was near the menopause, and the uterus began to undergo atrophy; but notwithstanding its smaller size, it could not resist such traction as was made from below by the rectum and bladder. After battling as long as it could, it had to give up the struggle; but it seems to have taken twelve years to get it completely out of the body.

The causes of prolapsus may be summarized under four heads:

(1) Pressure from above. Last year, a girl nineteen years of age, presented herself at this clinic, with the uterus completely prolapsed. She was perfectly virtuous, as was shown by the condition of the hymen, and the procidentia was the result of an accident. The pressure caused by the sudden lifting of a heavy tub of water occasioned it. The physician who attended her at that time made no examination, and treated her for inflammation of the bowels, and the condition had existed for a year when I saw her.

(2) Anything which increases the size and weight of the uterus, such as subinvolution, fibroids, etc.

(3) Anything which diminishes the uterine supports, such as rupture of the perineum and subinvolution of the vagina.

(4) Anything dragging upon the uterus from below, such as prolapsus of the rectum and bladder, fibroids, etc.

The third and fourth class of causes were the principal ones concerned in this case.

The time is not distant when confinement cases will be treated very differently from what they are at the present day. This is a subject of the utmost importance. There is the most urgent need of a radical change in the practice of the majority of the profession, and the time is ripe for the appearance of a stirring and able paper on "The Proper Management of Natural Labor," which will awaken medical men to a sense of their duty in obstetrical cases. The physician should be expected and required to visit his patient from time to time all through her pregnancy, in order to see that everything is progressing favorably for a successful delivery, and to remove, if possible, any condition (such as albuminuria, for instance) which is likely to interfere with this; and I am fully convinced that it will not be long before the accoucheur who does not pursue this plan will be held culpable. Again, he will be held equally culpable if he discharges his patient at the ninth day or the end of a fortnight, without making a physical examination, to ascertain that the parts have sustained no injury from the strain and pressure of parturition, and that the process of restoration to their normal condition is going on satisfactorily. A little attention paid at that time will often prevent the most serious consequences in the future. If the physician had made such an examination in this case, and had found the cervix lacerated, he might have waited a month, and then ascertaining that trouble was resulting from it, he should have sewed it up, and also restored the perineal body, which had given way. The repairing of the injured parts would not have been difficult, and all future evil would have been avoided. The operation of perineorrhaphy would have changed the shape of the posterior arch of the vagina from an S to a C, or rather restored the arch, which had been destroyed; and would have afforded it support once more upon the unyielding sacrum. The bladder also would have been held up in place by its normal support, since the anterior wall of the vagina always rests mechanically upon the posterior wall. All this could have been readily done in the second month after delivery, and it would certainly have been a great deal better to do it then than to wait thirteen years before undertaking the operation. It is true that this woman has suffered

comparatively little pain and inconvenience in consequence of the neglect of her physician; but this is a very rare exception to the general rule, and, as I said before, the time is not far distant when the medical man will be held responsible for allowing such a condition to continue without interfering to prevent the evil results so sure to follow from it.

Original Communications.

RARE FRACTURE OF SUPERIOR MAXILLA,

WITH FRACTURE OF ONE NASAL BONE, CONTUSION OF THE EYEBALL, AND DOUBLE RUPTURE OF THE CHOROID.

By CHARLES S. BULL, M.A., M.D.,

SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY AND TO CHARITY HOSPITAL.

In No. 356 of the Record, for Sept. 1, 1877, I reported three cases of old injury, in which the facial bones had been fractured, the nasal duct obliterated, and the eyeball either entirely destroyed or seriously injured. In two of these cases the original injury had occurred two years, and in the third case two months, before I saw the patient. Hence, the only course left for the surgeon, the nasal duct being in all three obliterated, was destruction of the suppurating lachrymal sac. In No. 364 of the Record, for October 27, 1877, is the report of an exceedingly interesting case of severe injury to the face, with compound fracture of the nasal bones, fracture of the nasal process of one superior maxillary bone and of the nasal spine of the frontal bone, and destruction of the eye, by Dr. John D. Neet, of Versailles, Kentucky. Dr. N. was fortunate enough to see his patient within an hour after the injury, and to his prompt recognition of the importance of endeavoring to elevate the depressed bones, and thus prevent deformity, is due the recovery of the patient with a perfectly patent nasal duct. The report of the case and the treatment followed is exceedingly clear, and well worth perusal.

As an additional contribution to the subject of injuries of the face, the following case of rare fracture of the superior maxillary bone is presented in detail.

Case.—The patient, æt. 30, a bartender, was first seen by me on January 11, 1877. Three days before he had been struck a violent blow on the left eye with a heavy glass bottle, which knocked him down, closed his left eye, and caused severe laceration of the soft tissues round the orbit, and copious hemorrhage. When I saw him, the swelling of the lids had subsided considerably, and there was a lacerated wound of the lower lid at the junction of the middle and inner thirds, extending through the entire thickness of the lid, and down for about half an inch upon the cheek. This laceration was situated just at the nasal side of the infra-orbital foramen. The left nasal bone was fractured along the line of the naso-frontal suture, separated from its fellow of the opposite side, and slightly depressed. There was no fracture of the nasal process of the superior maxillary bone, but there was a long vertical fracture of this bone, just in the line of the lacerated wound of the lid, extending from the orbital margin nearly to the alveolar arch. The inner fragment was depressed, as nearly as could be made out, about a quarter of an inch. There was extensive subconjunctival extravasation, the anterior chamber was full of blood, and the patient had faint perception of light. There was no rupture of the eye, and it was freely movable in the orbit. No injury to the upper lid, and none apparently to the nasal duct. The edges of the laceration in the lower lid and cheek were freshened and brought together by silk sutures, the sutures being passed through the entire thickness of the tissues; an attempt was then made to elevate the depressed nasal bone by cutting down upon it along the line of union with the superior maxilla, and this succeeded. But when a similar attempt was made through the same wound to bring the depressed superior maxilla into place, it failed completely. The fracture did not extend to the alveolar margin, so far as could be ascertained, and there was no sign of any depression in the mouth or pharynx. The inner fragment was firmly fixed in its depressed position, while the outer fragment yielded readily to the pressure of the finger. Attempts at reduction were then abandoned, particularly as there was no deformity perceptible after the wound in the lid had been closed. Cold-water dressings were applied, a four-grain solution of the sulphate of atropia was instilled every hour, and the patient kept in bed. The swelling rapidly subsided, the wound in the lid and cheek healed completely within forty-eight hours, and the sutures were then removed. On the fourth day the blood had disappeared from the anterior chamber, and there was then seen a discolored iris, posterior synechiæ at the temporal and inferior margins of the pupil, the latter irregularly dilated, and the vitreous was full of blood. The improvement was rapid, and three weeks after the injury the vitreous was sufficiently clear to admit of the fundus being seen with tolerable distinctness. The choroid was ruptured through the macula, the rupture being of the ordinary irregularly crescentic shape, with its concavity towards the papilla. One week later, on the nasal side of the disk, and distant from it about two diameters, was seen another rupture of the choroid, though not complete. The solution of continuity was through the inner layers of the choroid, leaving the outer layers with the larger vessels intact, and across this exposed red network of vessels ran a branch of the central retinal artery. This rupture was also crescentic, with its concavity towards the disk, and was not quite so long as the one on its temporal side. All swelling had entirely subsided both in lid and conjunctiva, and a careful digital examination of the orbit being made, the line of fracture could be traced backward through the orbital plate of the superior maxillary bone, as far as the finger could reach. The inner fragment was still immovable, but the outer fragment could be moved in a direction downward and backward, and no pain was occasioned by its motion. There was no deformity caused by the injury to the bone, but the cicatrization in the lower lid had produced some eversion of the lachrymal puncture, due to the lower end of the cicatrix being adherent to the underlying bone. To remedy this the lower canaliculus was incised and the incision prevented from healing by the daily introduction of a probe. The probe passed readily to the bottom of the nasal duct, showing that no obstruction or obliteration had been caused by the injury.

The lens was not dislocated and remained perfectly transparent throughout. The posterior synechiæ were broken by the atropia, and the pupil became normal in shape and size, and freely movable. Two months after the injury the patient had vision $=\frac{20}{100}$, which could not be improved by any glass.

The interesting features in the case are three in number.

1st. The vertical fracture of the superior maxillary bone, the line of fracture extending for some distance into the orbital floor. As before stated, fractures of this bone are almost always more or less horizontal, the line of fracture running below the malar bone. Though the break ran so near the infra-orbital foramen, the infra-orbital nerve seems to have escaped injury. How the blow was struck is not certain, though it must have come from above downwards, with possibly a slant inward towards the median line.

2d. The double rupture of the choroid, on both sides of the optic disk, and at about the same distance from it, in all senses symmetrical, except that in one all the layers of the choroid were not involved. The exact mechanism of such a rupture is not as yet perfectly understood. It is probable that at the moment of receipt of the injury the ciliary muscle was strongly contracted, but why this should make the choroid more brittle, as it were, and why the rupture should occur at just this spot in the region of the macula, have never been fully explained. A single rupture of the choroid is not very uncommon, but a double rupture in the same eye is a rare accident.

3d. The escape of the lens from all injury. The suspensory ligament of the lens is a very delicate structure, and it is scarcely reasonable to suppose that it would resist such extreme violence as a heavy blow directed full upon the eye, even though the force of the blow may be broken by the margin of the orbit; and yet it is not so very uncommon to meet with such cases. On the other hand, the lens has been known to be dislocated by very slight violence, and even to become opaque from concussion of the head or body. In this case not only was the lens not dislocated, but it remained transparent, and the two images of a candle flame could be distinctly made out on its anterior and posterior surfaces, when the candle was held in the ordinary way.

The other eye remained sound throughout, never showing at any time the slightest amount of sympathetic irritation.

47 East 23d St., N. Y.

SUBMUCOUS LIGATION OF HEMORRHOIDS.

By R. W. ERWIN, M.D.,

BAY CITY, MICH.

Of the many methods of treatment proposed in this troublesome affection, I do not remember having seen published the operation by submucous ligation. It has been suggested in external hemorrhoidal tumors having a covering of skin, or skin and mucous membrane, but not in the internal form. The procedure causes very little pain during the operation or subsequently. As a rule, no anæsthetic is required, nor is it necessary to put the patient to bed afterwards, or shut him in the house in ordinary cases. It is well known that the hypodermic syringe, after passing though the skin, causes scarcely perceptible pain in its transit through the cellular tissue, except it pierce a vein. As with the skin, it is the mucous membrane that is especially sensitive in this locality, the submucous tissue being comparatively free from sensibility. Of course both are modified by the pathological condition somewhat.

Acting upon this fact, the operation is performed as follows: the best time is the morning, just after evacuation of the bowels, which may be assisted by the co. licorice powder taken the night before, or an enema previously. The motion of the bowels will generally from the straining bring down the tumors. After washing, the patient is ready, and may be put in the usual position. The tumor should not be seized with forceps or hook, as it causes pain and irritation. Take a straight needle, or one with moderate curve at point, armed with a small, lightly-twisted waxed thread. With or without forceps pass it through the mucus tissue near the base of pile, and carry the needle around beneath the mucous membrane and out at the point of entrance. Tie it sufficiently tight to arrest the circulation, leaving a half-inch or inch of one end of the ligature. It will often be found advisable to carry the needle out through the mucous membrane at one or more points in making the circuit, but care should be observed to enter again at the place of exit. A little castor-oil or cosmoline may be applied over the parts and the whole returned. The effect of the operation is to cut off the vascular supply to the tumor, causing it to shrink away. The ligature comes away without trouble. Should the hemorrhoid puff up or become very dark after ligature, incise it a little with the scalpel, thus relieving the congestion. Operate upon the largest first. If the patient remains about home, two may be tied at the same time; otherwise one, unless small. After removing one or two of the largest, the smaller often disappear. The bowels are to be kept soft with the licorice powder, if necessary—not used as cathartic. For cleansing, a little warm castile soap-suds may be employed. In cases with heat and inflammation, the first effort should be to reduce it. If there is disturbance of the secretions or hepatic derangement, preface the operation a few days before with a mild corrective. I do not claim originality in this method of treatment.

Dec. 12, 1877.

FRACTURE OF STERNUM BY MUSCULAR ACTION; ALSO, FRACTURE OF SPINOUS PROCESS OF VERTEBRÆ.

By JOHN T. HODGEN, M.D.,

ST. LOUIS, MO.

October 19, 1877, Terence Clark, a native of Ireland, aged 38 years, a hack-driver by occupation, and living at the corner of 10th and Pine streets, while seated upon a banister, at the head of a stairs, lost his balance and fell backward a distance of twelve or fifteen feet, striking with his back or shoulders, or both, on some old hubs and fragments of broken wheels.

For a short time after the accident he was unconscious, but upon the return of his senses complained of severe lancinating pain on inspiration, between the shoulders and on the front of his chest. In addition, there was a constant, aching pain, more or less diffused over the entire chest, resulting from the contusion.

Upon each inspiration—if at all full drawn—crepitation could be distinctly felt at the junction of the manubrium with the gladiolus, and also distinctly felt upon manipulation of the spinous processes in the middle dorsal region. The sternum had been fractured at the junction of the manubrium with the gladiolus, and also the spinous process of the sixth or seventh, or both dorsal vertebræ, by the fall.

Movement and inspiration caused the patient much pain. He was dressed with a plaster-jacket, strengthened laterally and in front by strips of sheet-iron. By this means, movement of the osseous framework of the chest was contracted, the breathing became abdominal, and the fractured extremities of bone were put at rest. Ease and comfort soon followed its application.

Nov. 13th.—Bones have united, and patient, to all appearance, is well.

Reports of Hospitals.

UNIVERSITY OF PENNSYLVANIA HOSPITAL, PHILADELPHIA.

CLINIC OF PROF. H. C. WOOD, JR., M.D.

A RARE CASE—ACUTE MUSCULAR ATROPHY, OR INFANTILE PARALYSIS IN AN ADULT.

On the 8th of August last the patient was walking with a friend through his corn-fields. The weather, though quite warm, was not hot. He suddenly and without any warning felt a very severe pain in his head, followed by dizziness. He did not, however, lose consciousness. He went home and to bed, where he was confined for the rest of the day with fever and vomiting. There was a little blood in the vomit. On August 9th, after passing quite an easy night, he woke up to find that he had lost entirely the use of his right arm. Twenty-four hours afterwards he noted that his left arm below the elbow was also paralyzed, though the paralysis was not complete, there being no loss of sensation. He suffered for the two following weeks with a heavy ache in his right arm, accompanied with slight palpitation and occasional headache, but no fever. There has been a great deal of emaciation and great loss of strength. Three or four days ago he had a slight chill. He thinks that he is getting thinner and weaker every day. There is no giddiness and no indigestion. His bowels are only slightly costive. He tells me that the fever was broken up by the free use of quinia. The attending physician told him that it was an attack of bilious fever. As far as I can gather, his symptoms obscurely simulated those of dumb ague. But the palsy has persisted.

Upon examining his arms more closely, I find no paralysis of sensation. He can only move his right hand, and that but slightly. He has no control whatever over the rest of the arm. There is a pretty fair amount of power in the left arm. The muscles of both shoulders are wasted—the right deltoid to a mere film. I cannot place much confidence upon all the details of the history which the patient brings us, but I am quite sure that there is a very marked palsy here. Now, is this nerve, spinal, or cerebral palsy? It is certainly not a case of cerebral palsy, for, in cerebral palsy there is never such rapid wasting of the muscle. Why do I know this? It is a well-established fact that the muscles of the shoulder, the deltoid, etc., are supplied by nerve-fibres, coming from a number of so-called "trophic" cells situated in the anterior horn of the spinal cord. Such being the case, we are able with assurance to say that the trouble cannot be above the site of these cells. It is therefore certainly not cerebral in its nature. Nor can the palsy be in the nerve-trunks below the cells supplying the muscles. In such case, we could in nowise account for this rapid wasting. Then, too, if there were a local neuritis, there would be extensive pain along the course of the supplying nerves. But walking and jarring gives no pain, and there is no spinal tenderness. There might be disease of the muscles alone, but in that case only one side would be likely to be affected, and, moreover, the wasting of the muscles would not be near so rapid. The muscles have lost their contractility *pari passu*, with the wasting. The faradic current applied to the right arm fails to elicit any response; in the left arm the effect is much more marked, but still far from normal. It might have been an attack of sunstroke, but from all we can gather the symptoms were not by any means those of sunstroke. It is very unlikely that it was an attack of bilious fever, for there was no jaundice, no green vomit, and there is no tenderness over the hepatic region. A clot might be thrown out during the course of an attack of bilious fever, but it would have to be an exceedingly small clot to press only upon these "trophic" cells, and then only upon those supplying one arm. The clot thrown out in bilious fever usually cuts off the motility of the whole, or a large part of one side of the body.

By a careful process of exclusion we are led to the conclusion that the case must be one of acute muscular atrophy, or essential infantile palsy, due to changes which have occurred in the "trophic" cells of the anterior cornu. This is exceedingly rare in adults.

In childhood these "trophic" cells are in the process of active growth; hence, disease, when it attacks them, has a tendency to the acute type. When, however, we come to the consideration of these cells in the adult, we find the case changed. Here the cells have reached and probably passed their period of active growth, and consequently any diseased action which we find located in them has assumed a chronic form. Acute muscular atrophy is essentially a disease of childhood; chronic muscular atrophy, of the adult state. In childhood the process of wasting is exceedingly rapid; the muscle is very soon reduced to the mere shadow of its former size. In the adult the process is a slow one; fibre by fibre and fraction by fraction the wasting goes on. I say that this case of infantile or acute paralysis in an adult is an exceedingly rare one.

The prognosis is very grave, so far as the use of the arms, more particularly the use of the right arm, is concerned. For the disease has reached such a stage that we can do little to check the disintegration of the cells already diseased.

As regards treatment, we must try to strengthen the muscle and keep up its general health by local treatment. If any of the "trophic" cells yet remain healthy, we can try, by proper nerve-food, to keep them up and put a stop to the wasting. Galvanism must be applied locally to the muscles and phosphorus be administered internally. I do not think that strychnia is of much value in these cases. After the acute form of the disease passes off, however, hypodermic injections of strychnia may be made into the body of the muscle. Manipulation of the muscle will also do good. In employing galvanism, that current which causes the most contraction and gives the least pain should be made use of.

HYSTERIA.

There are at present two extremely aggravated cases of hysteria in the wards: one, that of a lady in whom the hysteria was brought on by an abortion, and who

has been steadily bed-ridden for seven years. The other case, that of a young girl, I bring before you. She has written out for me what she claims to be a reliable history of her past life, in so far as relates to the cause of her complaint.

According to this strange document, she taught school until she was eighteen, when she went into a clergyman's family as governess. The clergyman seduced her and gave her medicine which produced an abortion. Ever since that time she has been exceedingly nervous and hysterical. When the fits are on her, she states that she *eats glass and lead-pencils, and packs her vagina with broken glass.* Such things have been done before, but I don't know how much of the story to believe in the present case. She seems to be suffering from a chronic ovaritis, which is the probable cause of the hysteria.

Such cases as this one are fit subjects for ovariotomy, if the ovary be proven to be diseased. As regards the first case, stern moral control should be exercised, and the lady should be forced first to sit up in bed, and then to walk.

Progress of Medical Science.

Nervous Hemoptysis.—In a series of papers published in the *Archives Générales* for January, February, and March, 1877, M. Carré has sought to decide the question whether the nervous pulmonary hemorrhages that accompany neuropathies, especially hysteria, are the consequences or only accidental complications of the nervous affections. Many physiological and clinical facts, such as the pulmonary hemorrhages after division of the vagus or of the cervical ganglia of the sympathetic, etc., etc., speak for the former view. M. Carré reports 22 cases, which demonstrate the connection between nervous diseases and bleeding from the lungs. The primary affections which caused the bleeding were: in three of these cases, diseases of the cord; in one, multiple cerebral hemorrhages; in ten, hysteria; in one, chorea; and in seven, epilepsy. The number and variety of the above neuropathic conditions are in themselves evidence that there is something more than a mere accidental concurrence of the two affections. The quantity of blood raised varies; sometimes there is only enough to tinge the sputa, and again streams of pure blood may gush forth. The hemorrhage, however, never becomes as abundant as when it is due to tuberculosis. It is frequently accompanied by epistaxis, hematuria, enterorrhagia or cutaneous hemorrhages; also by certain vaso-motor symptoms, such as turgescence of the cutaneous and cervical vessels, distention of varices during hysterical crises, varying paleness and redness of the face in hysteria and epilepsy, circumscribed swellings on the forehead, macular exanthems, punctiform ecchymoses and erysipelatous patches. Physical examination of the chest in M. Carré's cases always gave negative results. In a few of the cases the hemoptyses were followed by galloping consumption.

Like hysteria, "nervous hemoptysis" is much more frequent in women than in men. The attacks generally come on at irregular intervals, except in the neuropathies, which manifest themselves by paroxysms at regular intervals. In these last cases the hemoptyses precede or follow or alternate with the paroxysms, but rarely accompany them. M. Carré does not include vicarious menstrual hemorrhages among the "nervous hemoptyses."

The author ascribes the pulmonary hemorrhages to a *vaso-motor paralysis*, which is consecutive to the stage of excitation of the vaso-motor centre. Both the neuroses and the organic cerebro-spinal diseases produce through the agency of the sympathetic, first a narrowing, and then a dilatation of the vessels; it is when the latter sets in that the hemorrhages take place. Hence it is that the bleeding usually occurs *after*, and only rarely *during the paroxysms.*

The prognosis of nervous hemoptysis depends on that of the primary disease. In itself it is almost never fatal. The most dangerous cases seem to be those in which multiple hemorrhages occur and the sputa are tinged with blood during the intervals.

The treatment must be directed against the primary disease. Astringents are only indicated when the bleeding is excessive. Venesection is usually injurious. Baths and derivatives to the skin are sometimes useful. In the author's experience, arsenic and sulphate of quinine have proved the most useful drugs. They excite directly the contractility of the capillaries, and act indirectly on the cord and the vaso-motor nerves. —*Allg. Med. Cent. Zeit.*, Oct. 17, 1877.

Poisoning by Agaric Bulbeux.—At a recent meeting of the *Académie de Médecine*, in Paris, M. Gubler read some extracts from a paper by M. Oré, on poisoning by the agaric bulbeux, a species of mushroom. M. Oré maintains:

1. That the symptoms manifested during life, by animals that have been fed on this fungus, present by their convulsive character a great resemblance to the symptoms produced by strychnia.

2. That the lesions observed at the autopsy, which consist in more or less marked congestions with ecchymoses, ulcerations, etc., occupying the entire length of the gastro-intestinal mucous membrane, also resemble completely the lesions found in animals which have been poisoned by strychnia.

3. That powdered charcoal has the same effect on a solution containing the deleterious principle of the agaric bulbeux, as on a solution of strychnia. When the two solutions are agitated with the powder, and then filtered, the charcoal retains both the poisonous principles.

4. Finally, that if a solution of strychnia be injected into a vein of one dog, and acidulated water, in which some bulbs of agaric bulbeux have been macerated, into a vein of another, both animals will present absolutely similar symptoms, and will die after the same interval of time.—*La France Médicale*, Oct. 20, 1877.

Bromide of Potassium in Puerperal Convulsions.—Dr. Hutchison, of Aberdeen, reports two cases of puerperal convulsions, which were treated by bleeding—in one case general, in the other local—and bromide of potassium. The bleeding was followed by decided improvement in both cases, but this improvement was not continuous. After the exhibition of the bromide, the convulsions became less severe, came on at longer intervals, and finally ceased entirely. Dr. Hutchison is satisfied that the successful issue in these two cases was mainly due to the direct effect of the drug. In one of the cases the bromide was given in twenty grain doses, every two hours, and in the other in fifteen grain doses.—*The Practitioner*, September, 1877.

Lesions of the Cord in two Cases of Tetanus.—Professor Tyson, of the University of Pennsylvania,

reports two cases of acute tetanus, in which the autopsies revealed softening of the posterior columns of the cord. In one instance this was attended by extravasations of blood, chiefly into these columns, but to some extent also from the vessels of the pia mater; also by destruction of the central gray commissure. In the second case, no extravasations were found in the posterior columns, but the macroscopic examination revealed venous congestion of the membranes of the cord, and of the lining of the central canal.

These two cases do not, however, diminish the uncertainty already existing as to the pathology of tetanus. In fact, they tend rather to increase it by adding another to the many lesions of the spinal cord that have been found associated with the disease. They justify the suggestion that, in future, the investigations should be directed to the peripheral nerves, extending from the seat of injury to the nerve-centres, as well as to these centres themselves.—*The Practitioner*, August, 1877.

The Use of Peroxide of Hydrogen to Prevent the Spread of Scarlet Fever and Small-Pox.—Since April, 1873, Dr. John Day, of Melbourne, has treated, with the peroxide of hydrogen, 115 cases of scarlet fever, being all the cases of the disease which came under his charge. These cases occurred in eighty-eight different houses, in only seven of which was there any extension of the disease after he had commenced his treatment. Six of the cases died. The treatment consisted at first in free inunctions three times a day, with a preparation composed of one part of ethereal solution of peroxide of hydrogen (erroneously called ozonic ether), and seven parts of pure lard, well incorporated without the aid of heat. The inunctions were continued about three weeks. No other remedies were prescribed except in a few cases in which the throat symptoms were severe, when a gargle, composed of two drachms of the ether in eight ounces of water, was ordered to be used every second hour. In his recent cases, Dr. Day has slightly modified his treatment. He now generally prescribes for the inunctions: ozonic ether, four drachms; pure lard, four ounces; benzoic acid, twenty grains; otto of roses, four drops, to be carefully mixed without the aid of heat. The benzoic acid is powerfully antiseptic, and possesses, moreover, the valuable property of allaying cutaneous irritation. He also prescribes throughout the whole course of the disease, a mixture composed of two or three drachms of ozonic ether in half a pint of water; a dose ranging from a teaspoonful for a child a year old, to a tablespoonful for an adult, to be taken every second hour. This is given to relieve the throat symptoms and to disinfect the breath.

Peroxide of hydrogen contains a larger amount of oxygen than any other known substance, and moreover, one-half of its oxygen is loosely combined, and in a highly active condition, ready to combine with any organic matter with which it may be brought in contact. It would seem, therefore, to be an agent specially suited for the destruction of the poison-germs of scarlet fever, small-pox, and other epidemic diseases. Dr. Day has so much faith in its disinfecting properties, that he recommends its use to disinfect letters, papers, and articles of clothing, over which it should be sprinkled. It may be combined with any perfume, preferably toilet-vinegar, or eau de cologne, in the proportion of about a drachm to the ounce. From a theoretical point of view, it might be supposed that peroxide of hydrogen would act more powerfully as a disinfectant in small-pox than in scarlet fever, in consequence of the curious property that pus-cells possess, of exalting its chemical activity and giving it the oxidizing powers of ozone.—*Medical Times and Gazette* and *The Practitioner*, August, 1877.

Propagation of Malarial Fever.—At the recent *Congrès Scientifique de Havre*, M. Lecadre read a paper on two epidemics of malarial fever, which he observed in the environs of Lillebonne in 1875 and 1876. Intermittent fever is endemic in that valley and in the neighboring marshes, but it is very rare on the table-lands. In 1875, however, he met with several cases in the latter regions which he attributed to the hay which had been brought from the marshes and spread there to dry. The same thing was observed after the hay-harvest of 1876. These observations afford ground for the assumption, that the wet hay was the vehicle of the marsh-poison.—*Union Méd. et Scient. du Nord. Est.*, Sept. 30, 1877.

Extirpation of the Larynx.—Dr. Foulis, of Glasgow, records the eleventh case in which the larynx has been removed for the relief of disease. This operation was first performed by Billroth in 1873, for cancer of the larynx. Two months after the operation the patient was discharged cured and able to speak clearly, though monotonously, by means of Gussenbauer's tube. Since then various Continental surgeons have performed the operation for relief of malignant disease with varying success. Six of the recorded cases ended fatally; two from the return of the disease at three and six months respectively; two from pneumonia at four and fourteen days; one from gangrene of the lung on the fourth day; and one on the sixth day from collapse, due to shock, insufficient food, and imperfect protection of the trachea from the introduction of blood and secretions. Of the remaining cases, one was a very partial operation for stricture in syphilitic disease, the patient dying eleven months afterwards from the constitutional affection; two have been but partially reported, and the ultimate issue cannot be stated. Lastly, the case published by Prof. Bottini is the only one on record in which, six months after complete excision of the larynx, the patient was in a quite satisfactory condition.

In the present case the disease had been twice removed by external incision, and now extirpation of the entire larynx was decided upon as the only means of affording relief. The incision was made in the median line, commencing at the lower edge of the hyoid bone and extending an inch below the cricoid cartilage. Immediately on its division, the trachea was fitted with a syphon-shaped leaden tube. This answered the double purpose of preventing the escape of blood into the trachea, and of allowing respiration to be carried on at a distance from the field of operation. The edge of the trachea was fixed to the skin by two long wire sutures passed deeply into the tissues. No other sutures or dressings were used. The leaden tube was left in for the first twelve hours, afterwards tubes of gutta percha, and finally of vulcanite were used. These tubes filled completely the trachea and effectually prevented the entrance of anything but air. The wound was not irrigated on account of the gulping and irritation which would be set up, but all the discharges were carefully sucked up by a wide-mouthed glass syringe. The air around the bed was kept heavily carbolized by means of a small current of steam from a kettle containing carbolic acid solution. On October 8, twenty-eight days after the operation, the wound had contracted to the size at which it is desirable to keep it, and a Gussenbauer's voice-apparatus is being moulded to fit it.—*The Lancet*, Oct. 13, 1877.

THE MEDICAL RECORD:

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WHY THE PROFESSION IS CROWDED.

We have before us a pamphlet containing the address delivered by Professor Pepper, M.D., at the opening of the 112th course of lectures in the Medical Department of the University of Pennsylvania, together with statistics of medical schools and doctors abroad, now published for the first time. In our issue of October 6th we devoted some space to a consideration of the subject-matter of the address. We would to-day like to call the attention of the profession to the very valuable tables which Dr. Pepper has drawn up to illustrate the status and number of medical schools in foreign countries, together with the proportion which has been found to exist in those countries between the whole number of physicians and the total population.

With a total population of 44,874,814 in the United States, there are 62,383 doctors, and 94 medical schools; one doctor to every 600 of the population. In France the population is 36,100,000; the number of physicians, 19,902; and the number of medical schools, 6; one doctor to every 1,814 persons. In Great Britain the population is 32,412,010; the number of physicians, 19,385; and of medical schools, 19; one physician to every 1,672 persons. In the German Empire there are 13,686 doctors and 23 medical schools to a population of 41,060,695; one doctor to every 3,000 units of population. In the Austro-Hungarian Empire there are 14,361 doctors, and only 6 medical schools, with a population of 35,904,435; one doctor to every 2,500 persons. These figures, which are evidently the result of a very thorough and careful study of the medical statistics of different countries, are highly significant. They show us that for equal units of population the United States has four times as many doctors and fifteen times as many medical schools as the Austro-Hungarian Empire; three times as many doctors and fourteen times as many medical schools as France; five times as many doctors and four times as many medical schools as the German Empire; three times as many doctors and four times as many medical schools as Great Britain. We are further shown that the yearly number of medical graduates is 3,000 in the United States, 550 in the Austro-Hungarian Empire, 750 in France, 550 in the German Empire, and 1,743 in Great Britain.

If anything can prove beyond disputation the ruinous course which certain medical matters are taking in this country, it is the facts to which we have called attention. We believe that the principles which limit the supply to the demand, in all questions of commerce and trade, have an equal application—at least should have an equal application—in medical matters. It requires from 2,500 to 3,000 persons to support one doctor, therefor one doctor is enough in a community of 2,500 persons; if there are any more doctors, they will render the profession of medicine, in that community at least, a ruinous one. It is all very well and very high-toned to say that a doctor should never be a mercenary individual—should carry on his practice entirely without thought of pecuniary profit. Practically and rationally considered, such insinuations as these are nothing at all but mere sentimentalisms. The fact that work of all kinds has a fixed money value—that the laborer is worth his hire, will hold just as long as there is any work of any kind to be done. We say that any attempt to have it generally understood that a doctor is a walking charitable institution is as false as it is unfair to the profession.

There is a great deal of complaint made nowadays at doctors' exorbitant charges. Why do doctors make such comparatively high charges? Simply because there is so much competition in the ranks of the profession, that a physician of reputation is forced to demand a considerable fee as a simple matter of support. He feels that he has a right to live respectably, and he naturally takes a fair advantage of his opportunities. With one doctor to every 600 units of population in this country, how is a physician to keep body and soul together unless he charges reasonably well for his work. With the vast majority of doctors in large cities, it is about all they can do to pay for their ordinary living expenses. The world at large expects too much from the doctors. They are only men, and, like other men, altogether dependent upon their own exertions. There are too many doctors in other countries—what then shall be said about this country? And yet the 94 medical schools still go on turning out their annual quota of graduates, the vast majority of whom, finding medicine not what they expected to find it, fall by the wayside and take up some other profession. A whole book might be written upon the innumerable vicious results of the over-production of medical men; but we will not tire our readers.

There are also in the Doctor's pamphlet some interesting statistics of the requirements for the degree of

M.D. abroad. In Germany the medical schools are supported by the government. The matriculate must either show the certificate of a gymnasium, or pass a preliminary examination. The course extends over four terms of nine and a half months each. The right to practise medicine can only be obtained by passing the State examination before an impartial board appointed yearly by the ministry. This examination is more severe than that passed by medical candidates for the army and navy in this country. In the year 1875, in Germany, only 292 out of 378 applicants for the license were passed. In the Austro-Hungarian Empire the schools are also supported by the government, and the matriculate must show a certificate, or pass a preliminary examination. The course of study extends over a period of at least five years of about nine months each. In France there are what are known as preparatory schools, which give the degree of health officer (*officier de santé*). The possessor of this degree can only perform minor surgical operations, and cannot practise out of the department of France in which the degree is given. To matriculate at these schools, the candidate must show a thorough knowledge of the elements of learning. The course extends over five years. In addition to the above there are the academies. To matriculate at an academy, the applicant must have the degrees of bachelor of arts and sciences. The course extends over four years of ten months each. In Great Britain the matriculate must show a degree in arts, or pass a preliminary examination. The course extends over four years of nine months each.

Dr. Pepper has also collected statistics for Belgium, Brazil, Canada, Chili, Cuba, Italy, Norway, Sweden, Spain, Venezuela, Russia, Denmark, Holland, and Portugal; but we have contented ourselves with a mention of the statistics of our own land and of four other prominent nations.

All these things are so plain, that he who runs may read. Everything which can offer advice, or give an example, points in one fixed direction. To this end the reduction of the quantity, and the improvement of the quality of legislation must be made. State examinatons must be enforced, and the sooner the better. It is the only way in which order can be restored, the number of physicians reduced, and the diplomas of the majority of the medical schools rendered worth something more than the parchment they are written on.

MEDICAL CERTIFICATES IN THE DAILY PAPERS.

The Committee on Ethics of the Medical Society of the County of New York made its first report on Monday evening last. Although this was merely of a preliminary character, there is enough of it to show that the members of the committee appreciate the responsibilities resting upon them, and that they are determined to do their duty. A proper initiative was taken in rebuking the writing of medical certificates in the daily papers, and in suggesting the only reasonable and suitable remedy for the growing evil, which is to the effect that "the offending parties shall at once withdraw their signatures from these advertisements, and thus place themselves in honorable record with this Society and the profession." This is the only course open to these gentlemen, one which we suggested some time since, and one which should have been taken by them of their own accord long ago, and when the certificates first appeared. As the case now stands, what would have been a matter of choice and ordinary prudence may become one of compulsion, which proceeding will carry a conviction upon its face. But the report is referred by rule to the Comitia Minora, which will doubtless take action at once, unless such may be made unnecessary by the prompt withdrawal of the names in question.

THE COLOR-LINE IN MEDICINE.

A recent number of the *Lyon Médical* contains some rather sharp remarks, apropos of the action of the College of Physicians and Surgeons in this city in refusing admission to Mr. Barbosa on account of his color. The writer has evidently a hearty dislike for America, which he calls the classic land of humbug and of liberty; and for Americans, whom he politely designates as Yankees. It is true, however, that the action of the Faculty affords good grounds for sharp criticism, and it is not surprising that foreigners should choose to regard it as an example of the real value of the much-vaunted liberality of Americans.

Reviews and Notices of Books.

Transactions of the International Medical Congress of Philadelphia, 1876. Edited for the Congress by John Ashhurst, Jr., A.M., M.D., Fellow of the College of Physicians of Philadelphia, Prof. Clin. Surgery Univ. Penn., Surgeon to Episcopal Hospital, etc., etc. Philadelphia, 1877.

The success of the International Medical Congress of Philadelphia is a matter of history. As a meeting of medical men from every part of the globe, it was thoroughly cosmopolitan and strictly representative; as an organization for the transaction of business it was almost perfect; as a purely scientific convention, it was a model of its kind in the elaborate and varied programme of its papers and in the systematic discussion of the subjects. The volume before us is a full record of these transactions, and its value can be bespoken in advance. Not more fortunate than in the meeting itself was the committee in the selection of one of the first scholars of the country as the editor. It is unnecessary to say that Dr. Ashhurst has done his work well, and that as a volume the Transactions will meet the expectations of the most fastidious critic. But so much in a general way for the work before us. The volume contains all the addresses

delivered before the Congress, and, with few unimportant exceptions, all the papers read in the meeting of the several sections, and by them referred for publication. Considering the great pains which the Centennial Medical Commission took in selecting subjects and authors, it is not surprising that, unlike most volumes of its sort, it is filled with communications of first-class merit. There were eleven addresses in all: On Medicine, by Dr. A. Flint, N. Y.; Hygiene, by Dr. Bowditch, Boston; Toxicology, by Dr. T. G. Wormley; Surgery, by Dr. Paul F. Eve, Nashville; Biography, by Dr. J. M. Toner, Washington; Obstetrics, by Dr. Theophilus Parvin, Indianapolis; Medical Jurisprudence, by Stanford E. Chaille, of N. O.; Mental Hygiene, by Dr. John P. Gray, Utica, N. Y.; Medical Literature, by Dr. L. P. Yandell, Ky.; Medical Education, by Dr. N. S. Davis, Chicago; and on Medical Staff of U. S. Army, by Dr. J. J. Woodward, Washington, D. C. Included in this list is the history of the Medical Centennial Commission, by Dr. J. C. Hutchinson, Philadelphia, and the address of Dr. S. D. Gross, also of Philadelphia. There are also the reports of the sections, nine in number, as follows: On Medicine, Biology, Surgery, Dermatology, Obstetrics, Ophthalmology, Otology, Sanitary Science, and Mental Diseases. It is impossible to give even the titles of the different papers read, much less a synopsis of them; suffice it to say that each of the authors—who, by the way, were selected with care beforehand—wrote upon the subject with which he was considered to be best acquainted. The object from the first being to have American physicians and surgeons show their best work, it is not surprising that the volume before us is a more than ordinarily interesting and useful one of its sort. With volumes of transactions of other societies it is only to be compared in name, while, in fact, it so far leads all others as to seem entirely distinct of its class.

Walsh's Physician's Combined Call-Book and Tablet. Third edition By Ralph Walsh, M.D., 326 C. Street, Washington, D. C.

Walsh's Physician's Handy Ledger. A companion to above. Same publisher.

Walsh's Call-Book has some advantages not possessed by others, in that it can be commenced and ended at any time of the year, is of convenient pocket size, and has a very simple arrangement.

Walsh's Ledger, which is intended as a companion to the above, is a neat, handy, and convenient-sized blank book for the transfer of accounts. Each page represents a year's attendance. The names of the months are in a vertical line, while the days of the month are arranged horizontally across the page. The amount for each month can be footed up at the end of each line, and the whole footed up for the year at the bottom of the page. There is also a general letter index to the volume. Its arrangement insures simplicity and accuracy with the least possible expenditure of time and labor.

Physician's Pocket Case-Record and Prescription Blank Book, with Visiting List. Cincinnati: Robert Clark & Co. 1877.

Messrs. Clark & Co. publish two lists with the above title: one of pocket size to be carried around, the other of larger dimensions, to which the cases from the smaller book can be transferred. The arrangement is such as to enable the physician to take the points in the case together with the prescription written, and at the same time furnish a duplicate to the apothecary. There is also a suitable table for a record of the work of each month. The larger work is three times the size of the smaller, and consequently each page contains three of the others.

The Physicians' Daily Pocket Record and Visiting List. Published at the office of the *Medical and Surgical Reporter*. Philadelphia, 1878.

This is a convenient little book, which will answer the purpose of most physicians. One advantage possessed by it is, that it is so arranged that the practitioner can begin to use it at any period of the year without loss of space. The book could, however, be made smaller without detriment to its usefulness. Forty-eight pages are devoted to lists of medicines, with their prices and doses, to tables of fees, of human weights, of the examination of the urine, etc. These could be greatly condensed, or better left out entirely. The death and cash records might also be left out with advantage, and the space devoted to the visiting list. The book is of pocket size, is printed on good paper, and is strongly bound. It possesses a self-closing clasp, and contains a perpetual almanac.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Nov. 14, 1877.

Dr. E. G. Janeway, President, in the Chair.

(Concluded from page 798.)

MALPOSITION OF AORTA AND PULMONARY ARTERY—THROMBUS IN HEART AND CEREBRAL EMBOLISM—DEATH FROM INTESTINAL HEMORRHAGE.

The President presented a specimen of the above, with the following history:

The subject of this case was a male child born January 16, 1876. He was cyanotic from birth, and suffered considerably from attacks of shortness of breath on exertion. During the first year of his life he had an attack of catarrhal pneumonia, from which he recovered. Previous to his becoming paralyzed he was able to say a considerable number of words.

In March, 1877, he became suddenly unconscious and paralyzed on the right side of the body. This happened in the morning. After several days he regained consciousness, and was subsequently treated by faradization for the paralysis. Under the treatment the paralysis improved considerably; as usual in hemiplegia, the leg recovered faster than the arm. Slight contracturing was becoming manifest in the hand. It was only on rare occasions, and that when strongly excited, that he could say "papa" and "mamma," after the advent of the paralysis. He would, however, when wanting water, point to it and say "ta." It should be stated that sensibility on the hemiplegic side was considerably impaired. On the evening of November 5, 1877, when convalescing from an attack of measles, which he had in common with two other members of the family, he was suddenly seized with vomiting. This was attended with evidences of pain, and was large in quantity. He soon showed evidences of thirst, and drank and vomited considerable quantities of water. At the time of the first vomiting he had a natural movement from the bowels. About 5 A.M. of the next day he had a passage from the bowels consisting almost entirely of fluid and clotted blood. This was sufficient to soil two

diapers, night-dress, and to soak into the mattress. He died about 1 P.M. of the 6th of November, and after death about a pint of blood escaped from the mouth and bowels.

I am indebted to my friend Dr. Castle for this ante-mortem history and for these specimens, which he brought to me for examination, removed by him at an autopsy on one of his patients. The heart, in its present state, is 2¼ inches long over the ventricles, and 2 inches broad. On looking at it in front, the aorta is seen coming off in the position usually occupied by the pulmonary artery. The largest part of the ventricles also is in front and on the right side. A dissection of the heart shows that the ventricle wall from which the aorta arises is 7 mm. ($\frac{7}{25}$ inch) thick; that this auriculo ventricular orifice is guarded by the tricuspid valve, and receives blood from the right auricle. There is no deficiency in the septum between the two ventricles—a condition which has obtained in certain cases of transposition of these arteries. The right auricle receives the two venæ cavæ and the coronary sinus in the usual position. The foramen ovale is patent, the opening measuring 6 mm. in the transverse and 1 cm. in the vertical direction. The Eustachian valve is fairly marked.

The left auricle receives the pulmonary veins and discharged its blood into the ventricle from which the pulmonary artery arose. This auriculo-ventricular orifice, as you will see, is guarded by the mitral valve. The ductus arteriosus is still patent for a small probe, though this requires a little pressure to make it pass. It does not seem probable that this opening, admitting a probe of 1½ mm., could have aided more than to a very slight extent the circulation of blood. Another circumstance worthy of note is the small size of the ventricle from which the pulmonary artery arises. Its walls are about 3 mm. thick, and its capacity is much less than that of its fellow. In the cavity of the ventricle from which the aorta arose, the columnæ cornuæ were well marked, and the depressions between them considerable. In one of these I found a small, white ante-mortem thrombus, round, and of the dimensions of a large pea. The aorta gives off its branches as usual.

The brain which I now show was taken from this child. It shows a greater destruction of cerebral matter than I have hitherto seen occur; and it is the more noticeable as the child was improving so far as the influence of the cerebral lesion was concerned. The left hemisphere has to a very great extent disappeared. We can still see some convolutions of the lower part of the middle lobe, a part of corpus callosum convolution just above the centre and posterior part of the corpus callosum in the longitudinal fissure and the inner two orbital convolutions of the anterior lobe.

The rest of the brain on this side is held together by the pia mater, and is partly pulpy in the central portions, and at the periphery is indurated, showing in some places little yellow pigmented portions. With the exception of the portions mentioned above, this hemisphere must have been functionally useless. A section shows that the corpus striatum is destroyed, but that the optic thalamus is preserved.

Looking at the base, descending atrophy is noticeable in the left crus, in the left side of the pons varolii, and in the left anterior pyramid of the medulla oblongata. This latter was, previous to my placing it in the bichromate solution for hardening, of a grayish color, and can now be seen to be on the surface almost one-half smaller than its fellow.

I find that the middle cerebral artery of the left side is obstructed just beyond its commencement, and is there smaller by one-half than its fellow. It feels like a cord. The anterior cerebral artery is preserved to the anterior communicating, and then becomes very reduced in size, and a small branch can be seen passing from the right anterior cerebral to the convolutions of orbital portion of frontal lobe which were preserved; also, in the longitudinal fissure at the point of preserved convolution of corpus callosum, a branch passed from right anterior cerebral to the left, and this latter artery is seen increased in size. The first portion of the posterior cerebral is of considerable size, and a branch passes to the preserved tempero-sphenoidal lobe convolutions. Further on the convexity of posterior lobe, this artery showed one of its branches obstructed. Whether this was due to embolism or thrombus from disturbed circulation, it is at this late date difficult to say. It seems to me that the extensive destruction effected by an embolism of the middle cerebral artery, in this case, is to be referred to the peculiar conditions obtaining in this child's circulatory organs; so that, when this artery was obstructed, it weakened the circulation of the posterior and anterior cerebral arteries to so great an extent that a proper anastomotic circulation was prevented, and the nutrition of parts supplied by these arteries was also impaired. It seems to me that the absence of any evidence of infarction elsewhere (spleen, kidney), and the fact of finding the obstructed middle cerebral artery, will do away with the supposition of a number of capillary emboli.

Dr. Castle states that the other lesions present were some bloody fluid in the pleural and peritoneal cavities, and an intense congestion of the ileum, and a slighter congestion of the colon. He states that no embolus was noticed in the superior mesenteric artery. I examined a portion of the intestine brought me, but its arteries showed no emboli. The liver, kidneys, and spleen showed no lesion, and the spinal cord was not examined.

It seems that a congestion of the intestinal vessels brought about the fatal hemorrhage. The cause for this may perhaps have been due to some disturbance of the circulation resulting from the attack of measles.

If we include this in the category of cases in which the ductus arteriosus was nearly or completely closed, to which I think it rightly belongs, it is one of a series of rather rare cases. I think that five only have been reported, the life in the oldest being continued to two years and eight months. There is a point about the circulation worthy of attention, and that is that there must have been a double current through the foramen ovale, or else we are unable to understand how the blood became mixed. A current from the vena cava inferior into the left auricle must have been compensated for by a reverse current from the left auricle into the right; or else, during the auricular diastole, the blood passed from one of these cavities into the other, and during the auricular systole the reverse took place.

Dr. Castle states that the sight of the eye on the paralyzed side was considerably weakened, and that Dr. Bull, on one examination, found that the retinal veins were markedly dilated.

A Monster.—A very robust woman in the valley of Locana, Italy, recently gave birth to a child that has two heads, four arms, two hearts and four lungs (?), but only one trunk and two feet. Both mother and child were doing well when last heard from.

Correspondence.

DEATH FOLLOWING VACCINATION.

To the Editor of The Medical Record.

Sir:—During twelve years' perusal of medical journals I do not remember to have read an account of death following vaccination. Dr. Martin, in 1872, reported 400,000 vaccinations, with no case of death. Dr. Foster has never heard of a case of death where bovine virus was used. All the text-books I have had access to, mention no case of death unless complicated by erysipelas. A medical friend has heard of three deaths, but is unaware of the cause; whether from syphilis, erysipelas, or septicæmia. A non-medical friend has stated to me that he knew of two deaths, but thinks they resulted from the use of syphilitic virus.

Information concerning cases with an unfavorable termination cannot come amiss to our profession; therefore I would occupy your columns to report the following:

M. A., female, aged three years; perfectly healthy; parents healthy; was vaccinated by me, March 16, 1877, from a quill of bovine virus; had not been humanized; quill came directly from a reliable vaccine producer—a gentleman I know to be endorsed by the health-officers of St. Louis and Cincinnati. Vaccination was performed by scraping off epidermis one-third inch square with scalpel; previous to using scalpel it was dipped in alcohol and burned. Heard nothing from case till April 2d, seventeen days after vaccination; was then told arm was tender, and action of virus had been retarded.

April 5th, child was brought to me from its home, seventeen miles distant; found the arm to be much swollen, swelling extending to its shoulder, but *very slightly* red; glands in axillæ scarcely swollen; skin and subcutaneous tissue not inflamed; swelling more an œdema than the result of an inflammation. Vaccine sore as it should be at ninth to twelfth day, but giving forth an offensive odor. Removed scab easily, and below it found surface purulent, unhealthy, gray, and insensible to touch. To the excavation I applied chromic acid, and covered with a charcoal poultice; to the swollen parts surrounding sore, applied tincture of iodine. Patient was peevish, and complained slightly of chilliness; temperature 102°, pulse 120; no perspiration, no delirium. Directed mild nervous and arterial sedatives; moved bowels with potass. bitart.

April 6th, temperature 101°, pulse 125; peevish; swelling increased; extended up the neck, on to chest, and down the arm. Little complaint of chilliness; no delirium, no perspiration; odor of ulcer less offensive. Little food taken; complains of nausea. Directed to continue above treatment, adding quinine in tonic doses, urging milk, beef-tea, etc. During the day and until evening the symptoms continued the same, the swelling constantly increasing, the arm at the axilla being twice the size of its fellow. All color was lost, the skin having a pearly white hue.

During the evening the bowels were moved quite naturally, when the child seemed less restless; slept a dreamy, feverish sleep for an hour, and, aside from the local symptoms, was considered by its mother to be better. At 11 P.M. she awoke, spoke rationally to her mother, then lay back and was dead. The immediate cause of death is unknown, as no post-mortem was made.

In connection with this case several questions of interest arise. Erysipelas, syphilis, impetigo contagiosa, etc., have been communicated by vaccine virus in well-known cases. There is reason to believe that a *crust*, containing as it does matters other than dried vaccine lymph, is open to the suspicion of causing unhealthy vaccine sores, but in this case the *quill* was used.

Neither of the parents could be suspected of syphilis, and as the scalpel was heated with burning alcohol, no distrust could be attached to that.

As the virus was bovine, we would exclude an erysipelatous contagium. Nor did the sore and surrounding parts present the appearance of œdematous erysipelas. No cases of erysipelas were occurring in this vicinity at the time.

Some members of the profession are of the opinion that vaccinia is more severe during an epidemic of any cutaneous disease. If the belief has any foundation, it is proper to state that a mild epidemic of scarlatina was prevailing at the time, and fully one-fourth of all cases vaccinated by me had symptoms of uncommon severity; many of the cases of vaccinia having deep ulcers discharging much pus, some characterized by a markedly offensive odor, one patient having well-marked symptoms of septicæmia, which in a severer form and occurring in an infant I believe to have been the cause of death in the case narrated above.

In the non-professional world such cases produce a dread that would annihilate vaccination, though a million of lives by it were saved where indirectly one by it is lost; it being impossible for such to believe that pyæmia following the vaccinator's scalpel is the same as that consequent upon a gunshot wound.

Jesse Hawes, M.D.

Greeley, Colorado.

TÆNIA TREATED WITH CARBOLIC ACID.

To the Editor of The Medical Record.

In vol. IX., p. 156, is a report of a case of tænia, treated by Dr. S. A. Brown, U.S.N., with carbolic acid. I have now a little additional experience in the use of this new agent, which I think preferable to anything in the routine treatment generally adopted. I transcribe from my case-book as follows:

Ralph D., æt. 4, good parentage, and ordinarily healthy; rather thin in habit, and of a nervous temperament. First discovered October 6, 1877, in stools. As the child had eaten freely of grapes, ordered its continuation, and prescribed santonine gr. vi., to be taken in two powders one hour apart at bed-time, followed with castor-oil in morning. This was pursued for three consecutive nights, with an abundant exfoliation of tænia joints. As it was greatly debilitating, I discontinued for a week, with the grape diet to be kept up, the exfoliation continuing. It was again repeated, with same results. Not being satisfied, I gave, October 23d:

℞. Acid carbolic cryst..... gtt. iv.
Glycyrrh. pulv..... q. s.
M. Ft. pil. No. ix.

Sig.—Five to be taken the first day, four the second, followed each time by castor-oil. Diet to be restricted to chicken broth, etc., etc. Obtained some five feet more.

The exfoliation continuing, I gave Nov. 12th the same prescription, with carbolic acid increased to gtt.

vi. Four pills were taken, and we obtained about three feet additional. November 20th, three pills were taken, and we obtained eight and one-half feet, including *head*. The entire parasite measured about thirty feet. There was no disturbance of digestion, and not a single unfavorable symptom.

J. W. Brown, M.D.

Mottville, N. Y.

QUININE AND URTICARIA.

To the Editor of The Medical Record.

My Dear Sir:—In a late number of your journal I see that Dr. Charles E. Slocum, of Defiance, Ohio, reports three cases, "all ladies, with whom the sulphate of quinine produced peculiarly unpleasant effects," viz.: "an eruption very severe and distressing in its effects," and the symptoms and effects of which were "mainly identical with those of *urticaria* ab ingestis." He reports these three cases as "unusual," and attributes the eruption solely to the use of the alkaloid of cinchona. In this section of Virginia—Tide-water Virginia—such cases are not at all unusual; have certainly not been unusual in my practice for the last twenty years; and for a long time, misled by the statements and opinions of the patients themselves, I attributed this urticaria myself to the quinine administered. I remarked, however, after treating quite a number of cases, that this urticaria not only always appeared in malarious districts, but generally in old intermittent fever patients, and that it observed a periodicity corresponding with the variety of intermittent to which the patient had been most subject—quotidian, tertian, or quartan—and that it supplemented the paroxysm, recurring, in other words, on the day and at the hour when the patient ordinarily had his chill. I at once concluded that the quinine, instead of being the cause, should be the cure of the malady; that the fault, after all, lay, as usual, with the *ingesta*, and that after cleaning up the primal viæ, and preparing the way for the proper absorption of the quinine, I should find the bane an antidote. I invariably, thereafter, commenced the treatment with a moderate dose of calomel, bicarb. soda, and Dover's powder—the latter being almost always rendered necessary by the state of general discomfort and irritation in which I found the patient; and after a gentle catharsis, gave quinine in appropriate doses, and at such intervals as the expected return of the paroxysm required. If there were much irritability of stomach, I added a little opium and creosote to the quinine pills, and have yet to see the patient who discovered that he was taking the much-dreaded alkaloid, however much he proclaimed the idiosyncrasy which prevented his taking it.

John Herbert Claiborne.

Petersburg, Va., Nov. 30, 1877.

ANOMALOUS CASE OF OPIUM-POISONING.

To the Editor of The Medical Record.

Sir:—Seeing in your edition of November 10th an article on "An Anomalous Case of Opium-Poisoning," I am induced to record a peculiar case that occurred in my practice some years ago.

J. P., æt. 29, single, blacksmith, in strong and robust health, a moderate drinker, rarely if ever becoming intoxicated, presented himself at my office one morning about half-past eight, in the summer of 1873, very much excited, and asked me to give him some poison which would insure a sudden and immediate death. While reasoning with him on the error of his ways, he exhibited a powder containing about one grain of morphine, part of which he spilled while showing it. Before he left (about nine o'clock) he quieted down and promised to behave himself, but refused to give up the morphine. I then started on my round of morning calls, returning to my office a few minutes before twelve, when I found a messenger there, who told me J. P. had taken poison. Taking my electro-magnetic battery with me, I was with him in a few minutes. I found him in bed with his clothes on, perfectly himself, and not in the least excited. He told me he had taken the powder exhibited at my office about an hour and a half before (corroborated by others), and that, as he was determined to die, it was useless attempting to save him. There was absolutely no symptom of poisoning of any kind, nor any effect of an opiate, except possibly the lack of excitement, although, as above stated, he was quiet before leaving my office. I made him get up, which he did with ease. Considering it my duty to guard against possible dangers, I produced free emesis (with mustard and water) without the least difficulty or delay. His stomach was loaded with undigested food. After the emesis he drank several cups of strong coffee, then laid down and was quiet, without any tendency to somnolency. I had sent to the druggist from whom he said he had bought the powder, to find out the quantity he obtained. The answer returned was, "One grain of morphine." My fears were now allayed. However, I remained with him until three P.M., when I shook hands with him preparatory to leaving. He was cheerful and chatty. I then went across the room, spoke a few words to the family, and was going out, when I heard him breathing stertorously. I went to him, but could not arouse him. His pupils had suddenly contracted to pin-holes; his breathing was greatly reduced in frequency, and was labored; he swallowed with the greatest difficulty. I immediately applied the battery, gave a hypodermic injection of atropine and enemata of whiskey, followed by efforts at artificial respiration. He died in eighteen minutes from the time he told me good-bye.

At the inquest it was discovered he purchased two morphine powders the day before, one containing five grains, the other one grain. He certainly took all he swallowed before I saw him, as we sat by and watched him closely.

It was then about an hour and a half from the time he took the morphine until the emesis; four hours and a half from the time he took it until the first evidence of the drug, after which he lived eighteen minutes.

J. Kinkead, M.D.

229 West 52d St.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 9 to December 15, 1877.

Smith, J. R., Major and Surgeon. Granted leave of absence for fifteen days. S. O. 16, Department of the East, December 11, 1877.

Wolverton, W. E., Major and Surgeon. To accompany four companies of 1st Cavalry, detailed for field duty. S. O. 169, Department of Dakota, December 5, 1877.

KIMBALL, J. P., Captain and Assistant Surgeon. Relieved from duty in the Department of the East, and assigned to duty at Fort Columbus, N. Y. Harbor. S. O. 250, A. G. O., December 10, 1877.

FINLEY, J. A., 1st Lieutenant and Assistant Surgeon. Granted leave of absence for one month, with permission to apply for two months' extension. S. O. 221, Department of the Missouri, December 6, 1877.

BARNETT, R., 1st Lieutenant and Assistant Surgeon. Leave of absence extended one month. S. O. 275, Division of the Atlantic, December 11, 1877.

NEWLANDS, W. L., 1st Lieutenant and Assistant Surgeon. Relieved from duty at San Diego, Cal., and to report in person at these headquarters for assignment. S. O. 153, Division of the Pacific and Department of California, December 3, 1877.

SHUFELDT, R. W., 1st Lieutenant and Assistant Surgeon. Assigned to duty at Omaha Barracks, Neb. S. O. 141, Department of the Platte, December 10, 1877.

Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department. for the two weeks ending December 15, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Dec. 8.....	0	10	57	2	33	55	0
" 15.....	0	11	56	4	23	66	0

ART IN HOSPITALS.—Dr. Geo. Bayles, of this city, in a letter to the RECORD, advocates the adoption of transparent pictures painted on glass, for hospitals, as being least of all liable to collect dust. In order to guard against any possible roughness from paint, he advises the application of transparent enamel. The latter can be done at slight expense. These pictures can be then thoroughly washed and are practically indestructible.

DEATH FROM SWALLOWING A NEEDLE.—A death from the above cause occurred recently in the Richmond District Asylum, England. The autopsy showed that death had resulted from hemorrhage, due to a puncture made in the aorta by a common sewing-needle which had been accidentally swallowed. The stomach contained a large clot, forming a complete cast of that organ. The needle was found partly in the aorta and partly in the œsophagus, and was quite rusty.

TILTED BED FOR PELVIC PAIN.—Dr. Heywood Smith, of London, has devised a means of relieving the dragging pains of pelvic tumors, by raising the foot of the bed upon blocks, six to seven inches high.

VACCINATION IN THE PUBLIC SCHOOLS.—The Board of Health has ordered that all the pupils of the public schools shall either be vaccinated, or show certificates of protection.

CHLOROFORM HALLUCINATION AND ALLEGED RAPE.—A surgeon was recently indicted at the Northampton Assizes (England) for rape, while having a tooth extracted. The offence charged was alleged by the prosecution to have been committed while the prosecutrix was so far under the effect of chloroform or chloric ether as to be speechless and motionless, but not unconscious. The defence set up was that the prosecutrix was under the influence of chloroform to such an extent as to have caused her to imagine that to have been done which she described. For the defence, Dr. B. W. Richardson was called, and stated from the evidence in the present case he should say that the patient had reached the second stage. The usual symptoms accompanying that stage were loss of consciousness and, in the case of women, development of any hysterical tendencies, any operation being impossible at this stage, the patient resisting and screaming if touched. It was at this period that the patient was subject to illusions. A person who was deprived of the power of motion by chloroform would, in his judgment, be deprived of the power of sight. He knew from his own personal experience that persons in the second stage were subject to delusions as to what had been done to them during the time. He gave an instance of a lady who, in the presence of himself, her father and mother, and a dentist's assistant, while under the influence of chloroform, brought a charge against the dentist who was operating upon her precisely similar to the one in the present case, and continued firm in the belief that the charge was well founded long after the influence of the chloroform had passed off, and probably still continued in that belief. The other medical witnesses who were called, and who expressed their concurrence in Dr. Richardson's evidence, were Mr. Mills, administrator of chloroform at St. Bartholomew's, Dr. Hawksley, Dr. Saundly, of Birmingham, and Mr. West, Senior Surgeon of Queen's College Hospital, Birmingham. It was stated that all the medical witnesses for the defence had come forward to give their evidence entire gratuitously. The jury rendered a verdict of *Not Guilty.*

Moral—Medical gentlemen should never administer anæsthetics to a female unless in the presence of witnesses.

ILLNESS OF PROF. STOKES, OF DUBLIN.—This distinguished physician and author has been stricken with apoplexy and consequent hemiplegia.

HARMLESS (?) INSANE.—A lunatic in the public asylum at Cadillac (Gironde), who has shown no signs of dangerous insanity, made a murderous attack with a knife upon the chief-physician. Fortunately, only an insignificant wound upon the cheek was the result. A similar case has recently transpired at an asylum at Schöneberg, the lunatic discharging five barrels of a revolver at a physician. Fortunately he missed his mark, and a valuable life was spared.

CONTAGIOUS DISEASES IN FRENCH HOSPITALS.—It is the practice to admit to the children's wards of the French hospitals every form of contagious disease indiscriminately, so that not unfrequently cases of diphtheria, scarlet fever, measles, and whooping-cough, are indiscriminately mixed. The medical profession of France has long protested against this practice, and now an effort is being made to introduce isolation wards.

DEATH OF DR. HANDSELL GRIFFITHS, OF DUBLIN.—Dr. Griffiths died of enteric fever, at his home in Dublin, aged thirty-two years. His researches in therapeutics gave him even at an early age a widespread reputation in this country.

HYDROPHOBIA.—The northern districts of Cornwall, England, are infested with mad dogs; hundreds of sheep have been destroyed, and a vigilance committee has been formed in every neighborhood.

STRANGERS IN THE CITY.—Quite a large number of medical gentlemen from different parts of the country are in attendance here upon medical lectures and hospital clinics.

HOMŒOPATHY.—The Medico-Ethical Society of London advocated the admission of homœopaths to our societies, and recommended that the question of consultation should be left to individual discretion and feeling.

UNIVERSITY OF AMSTERDAM.—The new university which has been established in Amsterdam, in accordance with a decree passed last year, was opened with great pomp and ceremony on the 15th of last October. The university takes the place of the Athenæum, which has flourished in that city since the year 1632.

A CENTENARIAN.—A woman named Annis Daguon died recently in Bordeaux, at the extraordinary age of 116 years.

AN EPIDEMIC OF FEBRIS RECURRENS IN POLAND.—Since the month of July an epidemic of febris recurrens has raged in the town of Ostrowo, in Poland. A peculiar feature of the epidemic has been the apparently complete absence of contagiousness, which in all previous epidemics has been described as being very intense. In none of the families of the better class has there been more than one case of the disease. The first attack lasts usually three days, and the subsequent period of apyrexia the same length of time. In one closely watched case the second attack lasted four days. The second attack has often been followed by three or four, so to speak, abortive attacks, which consisted in a sudden chill followed by fever lasting only two or three hours. When the fever breaks, a profuse perspiration takes place, and the temperature falls far below the normal. The spleen seems, as a rule, but slightly enlarged. The nerves are not affected. Severe muscular pains are not usually present. On the other hand, the attacks are often accompanied by bilious vomiting. It is a striking fact that the great majority of the persons affected have been women. A few of the cases that were complicated with icterus resembled the bilious typhoid of Griesinger, and some of them terminated fatally in the first or second attack. The hygienic conditions of the town are reported to be very untavorable. Abdominal typhoid is endemic, and the water of a number of the wells contains ammonia. The epidemic seems to be now on the decline.

THE MALADY OF THE SCYTHIANS.—Under this title Dr. Marandon de Montyel describes a malady which is peculiar to certain tribes of the Caucasus. The persons affected are men, and the affection consists in a loss of the attributes of virility before the advent of old age. The beard falls out, the genital organs wither, amorous desires are no longer felt, the voice becomes weak, and the body loses the strength and energy that it formerly possessed. Finally, the persons affected flee the society of those whose pleasures and labors they had previously shared, don the female costume, as they have already assumed the feebleness of the sex, and seek to assimilate themselves in all respects to the women, whose occupations they now share. The author passes in review all the opinions that have been advanced, from the time of Herodotus down to that of Boyard and Lallemand, to account for the etiology of this impotence of the Scythians. He agrees with the illustrious professor of Montpellier in attributing this singular metamorphosis to seminal emissions and onanism, the cause of which is to be found in the equestrian habits of the people.

A NEW JOURNAL.—A new medical journal, the *Nosographul Ospitalulin*, has just been started in Néamtu, Roumania. It is edited by Drs. Ulle and Moscovish, the former of whom is the chief physician, and the latter the assistant, at the hospital of Néamtu. Both are graduates of Paris. Dr. Ulle has already distinguished himself by a paper on the intestinal lesions of phthisis.

M. BOUVIER, member of the *Académie de Médecine*, recently died from the effects of an accident that had been occasioned by defective sight. He lived only a few hours after meeting with the accident.

FIRE AT THE HÔPITAL SAINT-ANTOINE.—On the evening of November 15th a large fire broke out in the Hôpital Saint-Antoine, in Paris. The wooden pavilions situated on the Rue de Chaligny were entirely destroyed. Two paralytic women lost their lives in the fire.

JULES ROUX, inspecteur-général of the French navy, corresponding member of the *Académie de Médecine*, died in Toulon on November 16th at the age of seventy years. He was the author of several scientific works, and was a frequent contributor to the medical periodicals. In 1842 he was appointed to the chair of anatomy and physiology in the naval school of Toulon. His principal work was entitled *De l'ostéomyélite et des amputations secondaires*, and was founded on cases observed in the naval hospital at Toulon. He also published memoirs on superficial angiolencitis, on diphtheria of the respiratory passages, on trepanning of the mastoid process, on amputations, resections, etc., etc. In 1847 he published in the *Mémoires de l'Académie de Médecine* an important paper on scapulo-humeral hydrarthrosis treated by iodized injections. This paper was the subject of a report by Velpeau, and gave rise to an important discussion. Jules Roux was one of the most distinguished surgeons of the French navy.

TRICHINOSIS IN LEIPSIC.—A mild epidemic of trichinosis broke out a short time ago in Leipsic. The disease, according to the official statement, has been traced to Brunswick "mettwurst," a kind of pork sausage. The epidemic has attacked chiefly the upper classes, the families of several professors being affected. Among others, a young medical professor has been attacked, but fortunately his attack is a slight one. The authorities have been urged to seize the pretty large stock of the diseased sausage that is still on hand in the city, in order to prevent the further spread of the epidemic.

THE MEDICAL JOURNAL ASSOCIATION OF THE CITY OF NEW YORK.—At an annual meeting, held December 7, 1877, the following gentlemen were elected officers of the Association for the ensuing year: For President, Dr. Robert F. Weir; for First Vice-President, Dr. H. F. Walker; for Second Vice-President, Dr. W. T. Lusk; for Recording Secretary, Dr. P. B. Porter; for Assistant Recording Secretary, Dr. W. T. Bull; for Corresponding Secretary, Dr. A. McL. Hamilton; for Treasurer, Dr. W. F. Cushman; for Librarian, Dr. J. H. Emerson. For Directors: Drs. H. P. Farnham, W. Johnson, C. M. Allin, and B. Robinson.

A quorum not being present at the latter part of the meeting, a fifth director was not elected.

Original Lectures.

ABORTION: ITS SYMPTOMS AND TREATMENT.

BEING THE SUBSTANCE OF FOUR LECTURES DELIVERED BEFORE THE MEDICAL CLASS OF THE UNIVERSITY OF PENNSYLVANIA.

By R. A. F. PENROSE, M.D.

(Reported for The Medical Record.)

The great accident of pregnancy is abortion. By abortion is meant the expulsion of the product of conception from the womb before the end of the seventh month. As there is no adhesion between the ovum and the uterus during the earlier months of pregnancy, abortion at this stage is very frequent.

As soon, however, as the chorion and decidua are developed, separation becomes more difficult, and a miscarriage is much less likely to happen. Thus, it may be said that the chances of abortion diminish as gestation advances. The older accoucheurs thought that these early abortions were very common, and if they occurred before the seventh day they were called *efflux-ions* or *shows*. Thus, Smellie says that at this time abortion is frequent, since "the embryo and secondaries are not yet developed, and the ovum is liquid and unformed." The reason really is, that at so early a date the ovum is very small, and so may easily escape and cause but little trouble. [We may even, with propriety, say that the escape of the ovum before the twentieth day would constitute an effluxion.]

Abortions, indeed, are much more frequent than any of you would suppose. According to statistics prepared by Dr. Whitehead, of the Manchester Hospital, in Manchester, England, among 2,000 pregnant women there were no less than 1,222 abortions; 37 out of every 100 women aborted at least once before reaching the age of 30. If to this number we add all the effluxions which took place, the grand total would be much larger. I think we may safely say that ninety per cent. of married women nowadays abort at some period of their lives. As it has been discovered that 106 boys are born at full term to every 100 girls, it would seem that abortion is more frequent in the case of females than in that of male children. Abortion may be of three kinds: *Spontaneous, accidental, and designed.*

CAUSES OF SPONTANEOUS ABORTION.

These may be divided into three classes, viz.:

I. Those resulting from the constitutional peculiarities of the mother and father.

II. Those resulting from the condition of the uterus and its appendages.

III. Those resulting from a diseased condition of the ovum.

There is a profound sympathy between the uterus and the rest of the human organism. Any strong mental impression may bring on abortion.

Among *constitutional* causes may be mentioned plethora, anæmia, the nervous temperament, and constitutional syphilis. [Syphilitic infection is usually of maternal origin. There is still a question as to whether the father can infect the child in the womb.] Where the father is exhausted by debauch or old age, the product is usually aborted. In an instance where a healthy young woman marries a debauched old man, she will probably abort after every conception; while, if the old man dies, and she marry a young and vigorous husband, she will carry every conception to full term. It has been very properly said that "old men should never worship at the shrine of Venus." Syphilis is an extremely frequent cause of abortion. When a man once gets constitutional syphilis, there is not much hope of his ever having healthy children. For this reason I say that a man who has once had constitutional syphilis had better always remain a bachelor.

CONDITION OF THE UTERUS AND APPENDAGES.

Under this head may be placed all the conditions that interfere with the development of the ovum. Among these may be mentioned displacements, inflammatory affections of the uterus and lining membranes, tumors, degeneration of the uterine tissue, diseases of the ovaries, rectum, or bladder.

In this connection may be considered the class of cases which are known as *periodic abortions.* These are due to menstrual congestion of the mucous membrane, a diseased state of the womb, or some abnormal organic condition. Shultz mentions the case of a woman who aborted twenty-two times at the end of the third month. I have had under my own care within late years two patients, both suffering from retroversion and chronic endometritis, one of whom aborted five times at the end of the third month in three years, and the other six times in four years at the same period.

The most common causes of abortion are those *which reside in the ovum itself.* Velpeau tells us that, in 150 abortions which he examined, one-half of the embryos were diseased. We see in this fact the kind conservatism of nature, which destroys all her imperfect productions. According to the general statistics of births, one child out of every three dies before the end of the first year. So, in the first year of infant life, nature proves her works, and, like Saturn, devours all her children until a Jupiter is born. Every infant's death, therefore, should not be a cause of mourning.

Almost all the diseases which occur after birth may be present in uterine life: inflammations of mucous membranes, dropsies of serous cavities, diseases of the liver and kidneys, tuberculosis, diseases of the cord, such as stranglings, twistings, knots, etc. Small-pox may be developed in the fœtus while the mother shows no symptom of the disease. Thus, Mauriceau, the celebrated French gynecologist, states that, although his mother showed no sign of the disease, his twin brother was born dead from small-pox, and he himself delivered the day afterwards with pox on his body. The great majority of intra-uterine diseases are the results of constitutional syphilis in the parents. In addition to the above disorder, there may be numerous diseases of the placenta and membranes—hydatid disease of the villi, alteration of the amnion, ossification or fatty degeneration of the placenta itself. Dr. Barnes has devoted much time to a study of fatty degeneration of the placenta. He states that it is caused by syphilitic infection resulting in an imperfect formative force in the ovum. Its symptoms are very obscure.

It does not matter in what way the doom has gone forth, the product must die. In such instances, abortion is a most fortunate occurrence.

CAUSES OF ACCIDENTAL ABORTION.

Accidental abortion is more likely to occur at a menstrual period than at other times. Its causes are numerous. Any profound physical or psychical impression may produce a miscarriage—such as a violent fall, a sudden fright, great grief. So, too, abortion is

frequently produced by irritation of a distant organ; a nipple, for example. In fact, any severe disease of the kidneys, stomach, rectum, ovaries, or vagina may bring on sudden abortion. On one occasion it was brought on by a speculum examination. The application of strong nitric acid, or nitrate of silver, will often cause abortion. A very common cause is coition, which must be carefully abstained from in all cases of irritation of the uterus, such as rheumatism and congestion. Coition is mentioned by older writers as a very frequent cause of abortion. When the danger of abortion is imminent, coition should of course be avoided. But shall coition be advised, or forbidden in healthy pregnancy? The best answer that can be given will be to relate the personal experience of some men who ought to know. Mauriceau said that coition must be avoided during the course of pregnancy. Mauriceau lived forty-six years in married life, and never had a child. Dionus said that caresses during pregnancy did no harm. Dionus's wife was pregnant twenty times, and gave birth to *twenty children at full term*. Aristotle gave it as his opinion that coition renders labor easier.

Another very frequent cause of accidental abortion is the careless use of the uterine sound. I might give you a number of cases which have happened in my own practice, where, had I believed the history of the case brought by the patient, and used the sound without further precaution, I might frequently have produced a miscarriage. Therefore, I advise you never to introduce the sound for the diagnosis of supposed uterine disease until you have eliminated the possibility of pregnancy.

Among other occasional causes are small-pox, scarlatina, typhus fever, and pneumonia; also certain oxytocics, such as ergot, borax, savin, cannabis indica, gossipii radix, and galvanism. In Brazil, the decoction of the green pineapple is used by the native women as an abortefacient. Psychical emotions are also potent causes. A good instance of this may be found in the narrative in the Book of Samuel, concerning Eli's daughter-in-law: "And his daughter-in-law, Phinehas' wife, was with child, near to be delivered: and when she heard the tidings that the ark of God was taken, and that her father-in law and her husband were dead, she bowed herself and travailed; for her pains came upon her." Any powerful drug in an overdose may bring on abortion. [I shall omit the mention of designed abortion until I come to speak to you of the operation for the premature induction of labor.]

THE SYMPTOMS OF ABORTION.

The two main symptoms of abortion are pain and hemorrhage. The pains come and go, and are much the same as labor-pains. The hemorrhage may be more or less profuse, and is due to the separation between the ovum and its uterine connections. The symptoms depend largely upon the cause which occasions the abortion, and the period of pregnancy at which it occurs. The symptoms of an effluxion, or of abortion in the early months of pregnancy, are not at all severe. The woman may be entirely unconscious of the fact; the ovum be mistaken for a clot, and so escape notice. When abortion occurs in the later months, the symptoms more closely resemble those of natural labor. After the formation of the placenta, the signs and symptoms are exactly those of natural labor. The cervix dilates, the membranes rupture, and the fœtus is expelled. In the first and second months, if abortion occurs, the ovum is expelled entire. This is always a fortunate circumstance. The uterus is left entirely empty and contracts rapidly. In the third and fourth months, however, the placenta is relatively large, and its connection with the uterus close. At this period the contractile powers of the uterus are unable to break up the utero-placental adhesions. Two conditions are always present in later months, to render abortion dangerous, viz., a large placenta and feeble uterine muscles. If abortion occurs at this time, the membranes rupture, the embryo is expelled, and the uterus, instead of being entirely empty and able to contract thoroughly, closes upon the placenta and membranes, and all symptoms subside. In the course of a variable period, these membranes are detached and expelled. This may not happen, however, for several days, and even not for several months. Abortion occurring at this period is, therefore, most dangerous. The retention of the placenta makes it impossible for the uterus to contract thoroughly, and there may be hemorrhage, or the placenta may putrefy and bring on general septicæmia. In cases of spontaneous abortion, we frequently meet with premonitory symptoms, but in accidental abortion the action is sudden, and we have no notice of the event until it is upon us.

When abortion comes on slowly the general symptoms are those of depression, nausea, lassitude, fever and ague, palpitation, etc. Should the embryo die in the womb, the symptoms of pregnancy will suddenly disappear. The weight in the hypogastric region will increase, while the abdomen diminishes in volume. The fœtal movements are no longer felt; there is no longer any pulsation of the fœtal heart. If the fœtus be dead, the intra-uterine temperature will be found to be one degree lower than during its life. After the death of the fœtus the mammary glands usually swell up, and in the course of forty-eight hours some milk may be squeezed out of the nipples.

After its death the fœtus is a foreign body in the womb, and is generally expelled in the course of a few days or weeks, but it may be retained for a much longer time. The prolonged retention of the fœtus need not of necessity cause any bad results, for, as the air is unable to gain access, the mass does not putrefy, but shrivels up and softens, and in the course of time is either absorbed or thrown off as a mole. In the case we have just been considering the membranes will not have ruptured; but, should the fœtus die and the membranes be ruptured, the symptoms would be different. Oxygen gains entrance to the womb and causes rapid putrefaction of the product of conception, as a result of which the mother's system may be fatally poisoned. In spontaneous abortion, where the expulsion of the child is gradual, there is much less danger from hemorrhage than where the labor is suddenly brought to an end by some accidental cause. In the first instance the contraction of the womb gradually obliterates the calibre of the utero-placental vessels, and so no blood can escape. When, on the other hand, miscarriage is brought on by violent or acute causes, gestation is brought to a sudden termination, pain sets in, and hemorrhage may be very great; the product is expelled very slowly, because the cervix is long and hard, and the contractile powers of the womb very feeble.

THE DIAGNOSIS OF ABORTION.

The diagnosis is very difficult in the earlier months. Abortion can only be made known at this period by the discovery of the ovum in the discharges; therefore you should direct that all the discharges be saved for your inspection. At a later period of pregnancy

we have the history of the case, the nature of the pains, and the presence of hemorrhage may be noted. We also can call to our assistance the signs furnished by a vaginal examination.

THE PROGNOSIS OF ABORTION.

Your prognosis will vary with the period of pregnancy at which the abortion occurs, and with the cause which produces it. Abortion is most dangerous during the third, fourth, and fifth months, because at these periods the placenta and membranes are usually retained. The prognosis is generally more favorable in spontaneous abortion than in accidental, for in accidental abortion the hemorrhage may be so rapid and profuse as to rapidly destroy the patient. So, in the majority of cases of criminal abortion, the victim dies from hemorrhage. When abortion is produced by small-pox, scarlatina, dysentery, or pneumonia, it is often exceedingly fatal to the mother. Dr. Wm. M. Welsh, resident physician at the Municipal Hospital for infectious diseases in this city, published some very interesting statistics in connection with the small-pox epidemic in this city in the years 1871–72. According to these figures, among forty cases of pregnant women taken with small-pox, twenty-seven recovered and thirteen died. Of these forty women twenty-four aborted; fifteen aborted early in the course of the disease, and nine during convalescence. Of the fifteen who aborted early, nine died and six recovered; while of the nine who aborted during convalescence, all recovered. We draw from this table the conclusion that abortion occurring in the early stages of small-pox is quite frequently fatal.

In cases of periodic abortion, the woman's general health is very likely to suffer, and a woman who has aborted once is more prone to do so again. After abortion has taken place the patient is more liable to chronic disorders, and less exposed to acute disorders, than she would be if confined at full term. Abortion may be said to be one of the most common causes of uterine disease.

THE TREATMENT OF ABORTION.

The treatment divides itself into two heads: the *preventive* and *curative* treatment. The preventive treatment is that by means of which we prevent the repetition of abortion. Here a knowledge of all the causes is indispensable. If plethora, anæmia, or nervous irritability exist, they should be modified or removed. If there is syphilis in either of the parents, they must undergo a prolonged anti-syphilitic and tonic treatment. This treatment must be steadily pursued for several years. Where the abortion is due to any local disorder, such as chronic endometritis, hypertrophy, prolapse, retroflexion, or erosion of the womb, the patient must be placed upon a steady course of treatment for the removal of these causes. Suppose, however, that we are called in to prevent the occurrence of a threatened abortion, what shall be done? If a syphilitic mother become pregnant, she must be subjected to a mercurial treatment and the local condition thus modified. If the ovum be already diseased, it will be impossible to prevent abortion. Indeed, under such circumstances, abortion would be a most fortunate circumstance, and on no condition should we attempt to balk nature in such a case.

The first question we should ask ourselves in all cases of threatened abortion, is: Why is it threatened? Upon the answer to this question depends all our treatment. If the ovum be diseased or dead, do not try to prevent the abortion. The family history will enable you to determine whether the ovum be diseased; if the product be dead, you will have the signs of death in utero. Suppose, however, that the product is not dead and not diseased, shall the abortion be prevented? The next question you must ask is: Can I prevent it? The embryo may be so far expelled that it would be worse than useless to interfere. The answer to this question depends on the dilatation of the os and the amount of hemorrhage. If the hemorrhage has been large, and the amount of blood lost considerable, the probability is that the utero-placental connections are so separated that abortion must ensue. Should a vaginal examination show the os uteri to be well dilated, and the membranes bulging, matters have gone so far that you cannot hope to prevent abortion, and therefore should assist it. There are various remedies for the hemorrhage. A drachm of the fluid extract of ergot may be given every three or four hours. I prefer the old wine of ergot given in doses of two drachms every hour or so. In addition to the ergot, the books tell you to apply cold cloths, ice, and vinegar to the abdomen, and to give gallic and tannic acid, or acetate of lead internally. I don't believe in any of these remedies. They are not half direct enough for me. If ergot does not control the bleeding, the next best thing you can do will be to tampon the vagina. A tampon acts in two ways: (1) it plugs the vagina; and (2) it stimulates the uterus to increased efforts. Never, however, put in a tampon unless you have given up all hopes of preventing the abortion. If you don't happen to have sponge-tents, tear up any napkin or piece of cloth that comes to hand and plug up the vagina. Sometimes I have had most excellent results from tamponing the mouth of the uterus with a sponge-tent or laminaria.

Now, as regards the curative treatment. If abortion occur during the second or third month, strive to secure a complete evacuation of the uterus. Otherwise the placenta will remain behind, and, becoming detached in the course of a day or so, will give rise to very serious hemorrhage. If the abortion occur in the fourth, fifth, sixth or seventh months, the membranes may be ruptured without danger if the hemorrhage proves excessive. When the child has been expelled, introduce your finger into the cavity of the uterus, and feel for the afterbirth. If it still remains in the cavity, it must be removed at all hazards. Have the woman brought to the edge of the bed, place one hand upon the abdomen, and insert a finger of the other hand into the uterus. Press the uterus well down upon your finger inserted into it, and scrape away until you have removed all the afterbirth. Never leave this work to nature, but see to it yourself at once. Where the placenta and membranes cannot be removed by the finger, various instruments have been devised for seizing them and bringing them out. Hodge's modification of Everett's bullet forceps is an entire failure, for the simple reason that you can't hold on to any foreign body after you have seized it with this instrument. Dewees's hook is not open to this objection, but it is so sharp that it might do much injury. The only instrument that has proved efficient is this species of duck-bill forceps which I now show you. I defy anything to get away which has once been caught by this instrument. If the placenta and membranes have begun to putrefy when you remove them, wash out the cavity thoroughly with some antiseptic injection.

Suppose that there is a hope of preventing abortion, what must you do? Put the woman to bed and give her two grammes of opium by the rectum. Or else

you may use a rectal suppository containing one-half a grain of the extract of belladonna and one grain of the watery extract of opium. Opium may be given hypodermically where the case is an urgent one. The bromides, too, should be freely administered in doses of from twenty-five grains up to five drachms. When the symptoms are very acute, ether or chloroform may be inhaled. Occasionally, where the woman is plethoric, from six to eight ounces of blood should be taken from the groin by leeches, or from the arm by venesection. Dry cups or mustard plasters may also be applied to the sacrum.

When abortion has taken place, the symptoms will generally be removed. There will be, perhaps, a lochial discharge for a day or two. You must now employ the after-treatment for labor at term. Keep the woman in bed for two weeks or more. Regulate her bowels by mild saline laxatives: do not use enemata at this time. Be careful, also, not to feed the patient too highly. Do not allow any meat for the first week. Ergot should be given steadily to promote the proper subinvolution of the uterus. When the patient gets up, put her on a tonic treatment, and impress it upon her that she is still an invalid, and must take no violent exercise. At her next menstrual period the flow will probably be excessive. This should be treated by rest and saline laxatives. The vagina should be well cleansed with astringent solutions, and ergot, gallic acid, and cinnamon tea administered internally.

Original Communications.

REPORT ON THE PATHOLOGY AND THERAPEUTICS OF DISEASES OF THE EAR.

By SAMUEL SEXTON, M.D.,

NEW YORK.

The literature of otology for the past year furnishes much that is of interest in the department of pathology and therapeutics. Dr. Dalby, aural surgeon to St. George's Hospital, has continued his contributions to aural surgery. In the *Lancet* of January 22, 1876, his third article treats of closure of the external auditory meatus. He thinks dilatation is only temporary in cases where the thickening occurs from the irritation of discharges. Where exostosis is the cause of closure, and repeated syringing will keep the canal clear of secretions, he recommends no further interference. But should the canal become completely obstructed, causing great deafness or serious trouble from retained secretions, an attempt should be made to remove the growth.

Two modes of operating are mentioned: First, by the constant current. In one case three needles were introduced into the growth and a current from six elements of Stöhrer's battery was passed for three minutes. Two weeks later this was repeated, and three weeks afterwards the growth was so loose as to be readily extracted, and the patient made a good recovery. In all cases holes cannot be drilled, owing to the hardness of the growth, for the introduction of the needles. In one case facial paralysis followed the operation, owing probably to the inflammation excited in the middle ear.

A second method suggested is the use of the dentist's drill, but its application is not mentioned in any case. Dr. Arthur Mathewson, of Brooklyn, however, reports a case operated upon May 21, 1876. The patient was placed under the influence of ether. The integument was removed from the exostosis by scraping with a dentist's scaler.

Elliott's suspension dental engine was then used to propel the burrs which had been ground down to square drills for the operation. The growth was perforated at several points near its centre by a drill one and a half mm. in diameter. Larger drills, two and a half and three mm. in diameter, were successively used to enlarge the perforations, run them together, and by lateral pressure ream out the meatus. The drills penetrated with ease, although the growth was very hard.

The movements of the instrument were readily controlled, it being held in the hand like a pen. The operation required thirty minutes, and owing to the bleeding the operator could not see what he was doing, but was obliged to rely upon the guidance of a probe.

The result of the operation, after some weeks of closure of the meatus by the swollen integument, was an almost complete restoration of the calibre of the meatus, and a return of hearing.

Dr. D. H. Goodwillie, of New York, a practising dentist, in December, 1872, soon after the dental engine first came out, constructed revolving knives to be used with the engine for the removal of necrosed bones of the mouth and nares. In these operations he has been very successful with the instrument.

He has recommended it to otologists for the removal of bony growths situated in the meatus. It can also be used for trephining the mastoid.

Dr. Goodwillie prefers White's engine, the power of which is carried to the instrument by a wire cable within a hollow case. It can be run in any position.

It should be borne in mind that these knives *cut*, and do not scrape like a burr. When contained in the sheath the knife can be made to cut by passing the instrument between the osseous body and the walls of the meatus; or if there is not room sufficient for this, it can be presented *against* the object and pushed forward as it cuts its way.

The knives can be made of different sizes. The number of revolutions per minute most suitable for operations is about 1,500. The engine is capable of making 2,500.

Dalby devotes his fifth article to fatal cases of diseases of the middle ear. He divides them into two classes: those occurring soon after acute inflammation of the tympanum, and those following a chronic purulent condition. The first are dismissed as unavoidable deaths. The second he notices at length. The details of cases are given where the fatal result was probably averted by timely treatment. Dizziness is mentioned as the most common symptom calling our attention to these serious cases.

Epileptiform fits are frequent, and the presence of polypoid growth is common.

That many cases with grave symptoms present are now successfully treated is an evidence of the progress of otology.

Dr. Dalby's sixth article is upon syphilitic affections of the ear. He states that, next to scarlet fever, inherited syphilis may be regarded as the most fruitful cause of deaf-mutism, as it occurs in children who are born with good hearing power.

The writer's experience for many years in the large charitable institutions in New York devoted to diseases of the ear, would not lead him to similar conclusions.

Dr. Dalby regards the disease as essentially a ner-

vous one, and the time at which the patient usually becomes deaf is in early childhood—after he begins to talk—or the period between this and puberty. The difficulties in making a diagnosis in these cases between nervous deafness and a faulty conducting apparatus are mentioned.

The seat of the lesion in the former is as yet undetermined. It may impair the functions of the auditory nerve in the labyrinth, or before its termination in that structure.

In affections of the ear from acquired syphilis he has observed that deafness is seldom total, and that both ears are usually affected at the same time. Only once has he seen a case of total deafness, and it recovered after six months' treatment directed to the constitutional disorder.

He gives our countryman, Dr. Roosa, credit for his researches upon this subject, and coincides with Dr. Roosa in the belief that the inability of the patient to hear high notes may locate the lesion in the cochlea. Their combined experience impresses one with the importance of a long sustained course of constitutional remedies.

Where the affection shows itself by an extension from the fauces through the Eustachian tubes to the tympanum, the symptoms are the same as in cases of ordinary catarrh.

Dr. J. Hughlings Jackson, in an address on nervous symptoms with ear disease, refers to them as follows: *First*, neuralgia. *Second*, Bell's paralysis. *Third*, scrofulous tumor of the brain. *Fourth*, cerebral or cerebellar abscess and meningitis. *Fifth*, pyæma. *Sixth*, hemiplegia. *Seventh*, epilepsy or epileptiform seizures. *Eighth*, aural vertigo. Some of these cases can only be said to be *associated* with ear disease. Referring to cerebral abscess, he says in some cases of chronic ear disease he has found in the cerebrum or cerebellum a mass of tubercle, in the place, so to speak, of an abscess from ear disease. The symptoms of these cases seem to differ from those of cerebral abscess only in chronicity. They were not tubercular meningitis. The literature of the subject is ably presented.

Dr. W. R. Gower publishes a series of articles on the diagnosis of auditory vertigo. Ménière's vertigo, a morbid state of the organ of hearing, Dr. Gower states, has passed from the presence of special aural surgery into that of general medicine, for the reason that the symptom vertigo has usually little apparent connection with its actual cause. The gastric symptoms often mislead both the patient and his medical adviser. The evidence on which the pathology of the disease is based is, first, the frequent association of paroxysmal vertigo with defect or disturbance of the function of the internal ear or auditory nerve; secondly, on some scanty pathological facts, which point to the existence in these cases of a morbid state of the semicircular canals; and lastly, on the well-known experimental evidence of the connection between the function of the semicircular canals and the maintenance of the equilibrium of the body.

The question of the mechanism of the action and disturbance of the semicircular canals is not entered into.

Dr. Gower reports some cases of labyrinthine vertigo.

The most important point in the diagnosis of auditory from gastric vertigo is deafness. Another symptom is tinnitus; and the loss of the power of hearing a watch in contact with the skull is a most significant change. The point of next importance is the character of the vertigo. The sensation which results from a primary disturbance is usually vague, a confused sense of defective equilibrium; that which results from a labyrinthine affection is definite, a sense of movement in a certain direction, subjective or referred to other objects. Dr. Gower is convinced that in a vast majority of cases in which vertigo is definite and uniform, and apparently excited by gastric disturbance, an auditory defect will be discovered on careful examination.

The diagnosis from cerebral disease, apoplexy, and epilepsy is given, and will be found of great interest.

As to prognosis, in many cases it is a very obstinate affection; but a considerable amount of relief may be afforded; in several cases immunity for long periods has been obtained. The bromides, quinine, salicylate of soda, etc., are recommended.

Dr. A. E. Cumberbatch reports two cases of paracentesis of the membrana tympani for the evacuation of accumulations of mucus following subacute catarrhal inflammation of the middle ear. The tympanum was washed out daily with a solution of carbonate of soda for a few days—the fluid being forced through the tympanum to the throat. The cases selected for the operation were similar to those recommended by Schwartze, who has recently proposed to revive the operation in cases of catarrhal inflammation of the tympanum where the mucus secreted neither escapes by the Eustachian tube nor bursts through the membrane, but remains within the tympanic cavity. Dr. C.'s cases resulted very satisfactorily, the hearing being much improved in both. He believes the operation to be safe.

Hinton, who practised this operation and reported several successful cases, relied mostly upon passing the injected fluid from the meatus through the tube, while Schwartze and others adopted almost exclusively the opposite plan of injecting the fluid from the Eustachian tube through the tympanum.

Although Hinton spoke favorably of this operation in his work on Aural Surgery, published in 1874, otologists seem to hesitate to adopt it as they did the operation of tenotomy of the tensor tympani for tinnitus aurium. Could the diagnosis of accumulations be always unmistakable, the operation would doubtless be tried more often than at present.

Dr. Urbantschitsch, in an article on the modification produced upon the sense of taste and the salivary secretions by purulent inflammation of the middle ear, relates his experiments made upon fifty patients.

In forty-six cases the author found the sense of taste anomalous. In four cases only of unilateral otitis, the taste was preserved intact on both sides. His tests were made with a variety of substances—sweets, acids, salt, and the like—applied to different parts of the mouth, tongue, and pharynx, in order to determine the normal taste. He regards the alteration of function as depending upon the compression or partial destruction of the chorda tympani or the tympanic plexus.

The augmented sensibility of taste, etc., depends upon an irritation of these nerves.

Dr. Dreyfus-Brissac reports an interesting case of thrombosis of the right lateral sinus, from an internal otitis. The patient was a female aged thirty-seven, suffering from a uterine tumor. The case resulted fatally on the sixth day after the aural symptoms manifested themselves.

Dr. Lévi, of Paris, publishes in the *Annales des maladies de l'oreille, du larynx*, etc., an article entitled Étude historique et critique sur le cathétérisme de la trompe d'Eustache et les divers procédés en usage pour faire pénétrer de l'air comprimé dans l'oreille moyenne. He gives the literature upon this subject

from the recommendation of Valsalva to utilize the Eustachian passages in the treatment of middle ear diseases down to the present time. Mention is made of Guyot, a village postmaster, the inventor of the first Eustachian catheter, 1724, and then follows in historical order an account of the modifications of Cleland, 1741; Boyer, 1818; Itard, 1821; Gairal, 1836; Kramer, 1836; Delau, 1838; Triquit, 1857; Bonnafont, 1860 to 1873; Giampietro, 1863; Gruber, 1870; Tillaux, 1875.

After describing the various instruments used by these authors, and their methods of using them, Dr. Lévi thoroughly describes the manner of douching the middle ear with air by means other than the catheter.

Dr. Robert S. Cooper recommends an ear speculum for the removal of foreign bodies. It is constructed with a spout-handle, and has a scoop-nozzle; the scoop end is passed between the foreign body and meatus, and is so constructed that the water passes *over* the end of the scoop from the ribbon-shaped opening of the bore, which is placed *above* and somewhat short of the semi-flattened scoop-like extremity. I have found that a small stream of water projected by a syringe with considerable force against the side of a foreign body, will pass by and *beyond* it more readily than any instrument can, and the return current will bring the object within easy reach of the entrance of the meatus.

Dr. James Patterson Cassells urges that those who breathe habitually through the mouth are more liable to deafness than those who breathe through the nose with the mouth closed. This is owing, he claims, to the fact that intra tympanic tension is necessary for the perfect function of the apparatus of hearing, and that open nostrils and nasal respiration are essential factors in the maintenance of this normal balance of tension between the intra- and extra-tympanic air-passages.

He relates some observations which tend to the conclusion that nostril breathing is natural, and that in childhood we should attempt to compel such breathing.

He refers to an interesting statement made by Catlin, a traveller among the American Indians, who visited 150 different tribes living in a savage state. Among this large number—two (2) millions (?)—he states there were found only three or four deaf mutes, and not a single individual who was either dull of hearing or deaf. (I have always supposed aural disease must be quite frequent among a class so much exposed to the inclemencies of our north-western climate, and accounts are quite frequent of the natives who, while smoking, force the smoke out of their ears.) He explains the fact (?) by stating that it is the custom of Indian mothers to train their children to breathe with the mouth closed.

Dr. Cassells has published an article on Ear Disease and Life Insurance, which is of practical importance, and a valuable contribution to that subject.

The Connection between Diseases of the Organ of Hearing and the Nervous Trigeminus is the subject of a paper by Professor Moos, of Heidelberg. He divides these diseases into (1) those of purely cerebral disturbance of the acoustic and the fifth nerve, in which the sensory portion only of the fifth is affected; and (2) cases in which organic affection of the hearing organ is present, generally acute or chronic purulent inflammation of the middle ear, with disturbances of the trifacial, the latter having commenced when the hearing organ had become affected.

He relates some illustrative cases, together with the treatment resorted to.

A new means of diagnosing the anomalies of the tympanic cavity is given by Professor Gruber, of Vienna. He observes that when a tuning-fork is vibrating close to the healthy ear, and Valsalva's method is used, the sound is decreased by the increased outward tension of the membrana tympani.

If the patient, when this experiment is made, fails to notice that the sound is decreased, the membrane has already a *plus* tension outwards; but if the patient hear better under the experiment, there is a *minus* tension.

The vibrating tuning-fork placed on the head during Valsalva's experiment will be heard better in the normal ear, but if there be *plus* tension, the sound will be unchanged. If there be *minus* tension, the sound will be decreased, the membrane transmitting sound better than when lax.

In the *Medico-Chirurgische Presse*, Prof. Gruber, referring to artificial membrana tympani, prefers usually the use of cotton-wool to Toynbee's elastic membrane, for the reason that it is more adaptable to the conditions of the natural membrane, a continuous chain for the conduction of sound being formed. He often uses this kind of artificial membrane for the application of medicaments in preference to dropping solutions in the ear.

The relations of ear disease to insanity are shown by the report of a case by Dr. Williams. The patient, an inmate of Bethlem Royal Hospital, was on admission noisy, violent, and sleepless. In a few days he became quiet and sullen. In a fortnight after admission he again became excited and violent, when a profuse purulent discharge from the left ear was noticed. He stated that he had had this for months past. Hearing seemed unaffected. Slowly a large puffy abscess formed over the left mastoid, extending up over the squamous portion of the temporal bone. On pressure, pus escaped into the meatus. This swelling increased for a month, but the patient was regarded as too dangerous to be examined. A month later, however, the abscess was opened under the ether-spray, and he became sane at once. No further discharge took place from the ear. A fortnight later, under chloroform, a free incision was made, but a careful exploration failed to detect any cause for the discharge. For some time the patient complained of severe frontal headache and general malaise, but the wound healed, and the patient improved in every way. After watching him six weeks, he was discharged well. The origin of the abscess was doubtful. It extended deep in between the mastoid and parotid glands, but no diseased bone was anywhere found.

Several cases have recently been observed at the Bethlem Royal Hospital in which mental symptoms have abated on the onset of acute maladies, especially when implicating cranial nerves.

Dr. Williams is unable to state whether there was propagated an inflammation of the brain or a mere conduction of disease along a cranial nerve.

Dr. Hanbury Smith, when superintendent of an asylum for lunatics, mentioned several cases in which aural disease was intimately connected with the mental disturbance, in some holding the relation of cause to effect. Twenty-six years ago, when Dr. Smith wrote, attention had scarcely been called to this subject, and he is among the first to suggest the importance of making a thorough examination of the organ of hearing in connection with the treatment of lunatics. As institutions were then conducted, Dr. Smith could have had but little time to study the department of Otology, but his observations, made so long ago, should have certainly been more productive of results in this much-neglected field.

Under the heading of Some Practical Remarks on Aural Affections, Dr. Jones, of Cork, is publishing a series of articles, profusely illustrated with drawings, of the instruments usually used by aurists.

Although but little new or original is advanced, the articles may serve to attract the attention of the general practitioner to a subject he should undoubtedly be more familiar with.

Dr. George P. Field read an article before the Harveian Society, London, on the graver aspects of otorrhea.

The animal parasites which are frequently found in the external auditory meatus of the lower animals are described by Trautmann. In deer, Dermonyssus, or Hühnerlaus, has been found, as recorded by Von Tröltsch, causing inflammation with excessive secretion. Dr. Trautmann has found in the ears of sheep, dogs, and rabbits, the Dermatodectus Caniculi. He has seen them present in the external, middle, and internal ears, but he thinks they are not capable of boring through a healthy membrana tympani. He believes that, having found their way into the tympanic cavity, they are able to pass through the membrana tympani secundaria. Before their entrance into the labyrinth, the rabbit shows little or no sign of discomfort, but, on their gaining an entrance there, the head was held in an oblique position, and a loss of equilibrium was noticed in attempting to move. Shortly after this, symptoms of meningitis set in, and death soon followed.

Though these animal parasites have not been found in man, the Doctor advises that children ought not to be allowed to fondle rabbits, dogs, or sheep, lest the animals being affected by these parasites, the children might receive them.

Dr. Wagstaffe recommends a new dilating speculum auris, constructed on the model of the tracheotomy canula. The instrument is expanded by a series of levers acted upon by a large milled head, by which the dilatation is controlled. It has a large polished external orifice, and is capable of being highly illuminated.

Several otologists during the past year have again drawn attention to the education of deaf-mutes. The number seen in the institutions in New York devoted to treating diseases of the ear, should greatly increase the facilities for teaching this class at the public expense.

Deafness during pregnancy, Dr. Pierce, of Manchester, thinks, begins with that state. Dr. Lennox Brown regards such cases as common, and believes they are not catarrhal, but thickening of the mucous membrane. Sometimes they are nervous in character.

Dr. Alexander Morrison describes a modification of Seigel's otoscope. It is a miniature Brunton speculum with exhausting-tube attached. The advantage claimed is that, on account of the reflecting mirror in the speculum, the observer looks directly on the membrane through a lens placed parallel to the eye.

Those who have labored under the disadvantage of using Seigel's obliquely placed lens can appreciate the advantage of Dr. Morrison's suggestion.

In this connection it may be stated that Dr. Purves, of Guy's Hospital, frequently uses Seigel's otoscope for the purpose of drawing out the tympanic membrane. The most prominent advance, however, in the use of Seigel's otoscope as a means of elevating the drum-head, was made by Dr. Pinkney, who used the flute-key lever-syringe of stomach-pump as a means of suction. This was undoubtedly an important step as ordinary suction by the mouth is in many cases totally insufficient.

Iodized preparations are urged as applicable in the treatment of most diseases of the ear in childhood by Dr. Ladréit de Lacharrière. As an injection in purulent inflammation he recommends the following proportions: Aquæ, 1000; tr. iod., 30; iod. pot., 4; to be used night and morning. He bases this suggestion upon the belief that scrofula is the most frequent cause of otorrhea in childhood.

In an article on aural polypi he recommends as a cautery chloride of zinc made into sticks by the addition of a little wheat-flour; a little morphia is also added to the mixture.

Hardy, in an article published in the Paris *Médicale*, discusses circumscribed meningitis and Mèniére's disease. At a meeting of the Medical Society of London, in January last, Dr. E. Wookes read a paper on the sympathy of the ear and mouth.

The frequent inflammation of the ear and otalgia caused by the presence of a decayed tooth or sore on the tongue was explained by the fact that fibrillæ belonging to the vaso-motor system of nerves mingled with those of the cerebro-spinal system; the former set of fibrillæ being brought into reflex relationship with the nervi vasorum distributed on the arteries of the part reflexly affected by means of the sympathetic ganglia, in which two sets of fibres communicate. In this way it was shown that distinct channels of communication existed between the vessel nerves which regulate the supply of blood to the ear, and the otic ganglion, while branches of the fifth nerve connected the carious tooth, and ulcers on the tongue also communicate with this ganglion. Morbid impressions affecting the latter would influence the former, and thereby produce vascular distention of the drum-head and contiguous regions, producing a veritable hyperæmia of these parts, to the consequences of which pain and inflammation were referred. Dr. Wookes explained what may be a frequent cause of spasmodic croup; a communication existing between the nervi vasorum of the vessels of the larynx and the auriculo-pneumogastric nerve supplying the meatus. Cold draughts of air falling upon the ear would through sympathy be the cause of spasmodic croup.

Laryngitis may thus occur from the presence of a foreign body in the meatus.

Nothnagel collects valuable facts, in a late volume of Ziemsseu, on thrombosis of the cerebral sinuses in connection with aural affections.

Huguenin, in the article on inflammations of the brain and its membranes, contributes also to the literature of otology. He recognizes the frequency of the transmissions of inflammation from the temporal bone to the regions treated of. He says abscesses of the brain, which are secondary to affections of the ear, appear to be slightly more numerous than those which arise from injury. The affected part may be caries of the bony portions of the external auditory canal, as well as caries of the walls of the tympanic cavity, of the walls of the labyrinth, and finally of the mastoid process. After giving the most frequent seat of abscesses, he explains how the affection of the ear may lead to suppuration of the brain. Some abscesses are directly continuous with perforations of carious bones, but perforation of the bone is not a *conditio sine qua non* for the existence of an abscess of the brain.

Many cases are on record where the surface of the bone was perfectly intact; where, indeed, the existence of caries could not be positively demonstrated. Those interested in the subject will find the whole article very instructive.

The literature of this subject has been recently written up most ably by Green, in a brochure repic-

duced from the reports of the Boston City Hospital. Dr. Green presents the subject in an unusually clear manner.

Dr. Roosa reports a case of meningitis resulting fatally in twenty-eight days from the appearance of aural symptoms. The affection began as an acute *otitis media catarrhalis* with impacted cerumen which the patient thought was a facial neuralgia. Dr. Roosa calls attention to the rapid advance of the disease.

The danger attending the introduction of fluids into the nasal passages by means of the nasal douche has continued to interest aural surgeons in this country and abroad.

The weight of evidence is undoubtedly against recommending the use of the ordinary nasal douche so called.

Dr. Buck goes further than this in regard to the use of fluids in these passages, and objects to the use of the atomizer.

Shaw relates eighteen cases where injury was done the middle ear by various means of flooding the nasal passages.

In sixteen cases the liquid was introduced by the nasal douche and syringe, in one by the Valsalvian method, and in one by snuffling into the nostrils.

Dr. Lennox Brown agrees with the majority of otologists upon this subject in a late publication in which the subject is referred to.

The writer hereof once was compelled to cease using a powder which was smartly blown into the naso-pharyngeal vault. Its use produced an irritation of the middle ear. The powder used was in part composed of the persulphate of iron. The patient suffered from chronic naso-pharyngeal catarrh and catarrh of the middle ear as well. A rhinoscopic examination showed a very free opening of the Eustachian tubes at their pharyngeal termination.

Paulson recommends the use of carbolic acid in otorrhœa without disease of the bone or the presence of polypi. He uses the acid one part to ten of olive oil. He avoids the frequent use of the syringe, and applies the remedy upon a small portion of cotton-wool, leaving it *in situ* until the next day, when the process is repeated if necessary.

Blake reports a peculiar form of obstruction of the external auditory canal which is described as being more pasty in character than the ordinary cerumen plug, and intermingled with flakes of yellowish sodden epidermis; the pasty mass is invested with a thickened layer of epidermis clinging closely to the lining of the canal.

It is found that this mass will not yield to ordinary syringing with water, but is best removed by aid of probe and angular forceps. Blake found in some cases great assistance from a saturated solution of carbonate of potash applied to the centre of the mass, carried by means of cotton-wool rolled upon the end of a probe. The resulting saponaceous mass was easily removed by syringing.

Agnew, in an article on otitis and its relations to "taking cold," recommends that those subject to colds should learn to endure draughts: first, by diminishing the morbid sensibility of the body by graduated exposure and friction of the skin in a daily air- or sun-bath, followed by such local sponge-baths as may be attended by speedy reaction.

The temperature of the water first used must not be lower than 80° Fahr.

The first air-bath should only consist of a few brisk turns across the bed-chamber. After a little practice the exposure may be increased to twenty minutes, and the temperature of the water used in washing accommodated to that of the outer air. At least four times a week, the patient while taking the air-bath, and *before* using the water, should rub the entire surface of the body briskly with "hair mittens and strop."

The object to be kept in view is to gradually and systematically lessen the morbid sensibility of the body by *daily* exposing the *entire* skin surface to air, light, friction, and cleansing, in an atmosphere as nearly as possible at the prevailing temperature.

This brief mention gives only the most suggestive portion of an article which is characterized throughout by the author's peculiarly forcible manner.

The Otological Section of the International Medical Congress of 1876, met in Philadelphia, Sept. 4th of that year. Dr. Buck, of New York, Dr. Burnett, of Philadelphia, Dr. Blake, of Boston, Dr. Spencer, of St. Louis, and others read papers. The entire proceedings not having been published, it is impossible to give here a complete notice of the meeting.

Dr. Swan M. Burnett, of Washington, D. C., reports a case of diplacusis binauralis. The phenomena described occurred in a patient aged 59. Dr. Burnett also reports a case of restricted range of audition.

The results of experiments with nitrate of amyl in tinnitus aurium are given by Dr. J. Michael, of Hamburg. He says the tinnitus in which the remedy is suggested is especially the hypertrophic form of middle ear disease, and in affections of the labyrinth. He was led to employ this remedy from its well-known sedative action upon the sympathetic system, especially the vaso-motor nerves, and the fact that many forms of tinnitus aurium are caused, not by an increased intra-labyrinthine pressure (Politzer, Weber), but occur as the result of nervous irritation of the auditory nerve, or of hyperæmia, or anæmia of the brain or the internal ear—the tinnitus resulting from the administration of quinine, salicylic acid, and other drugs, for example, being explained only in this manner. The remedy was employed in twenty-seven cases by himself, and in six cases by Dr. Urbantschitsch. A greater or less improvement occurred in nineteen cases. Among these were three in which the tinnitus disappeared entirely from one ear, and in the other was somewhat diminished. In four cases, a by no means inconsiderable improvement in the hearing was observable.

Three cases passed from observation. In the majority of cases there was an otitis media hypertrophica; of the cases not improved, one, and of those improved, two were labyrinth disease. Of the cases improved, one also was a purulent inflammation accompanied by polypi.

From one to five drops of the remedy was inhaled at a sitting.

The inhalation was continued during the appearance of the usual symptoms, flushing of the face, injection of the blood-vessels of the eye, etc., and suspended on the occurrence of vertigo. In all the cases improved, the tinnitus was increased during the period of inhalation. As the flushing of the face disappeared, the tinnitus diminished, and became less than before the application; the duration of the improvement after an inhalation was very varied. At the time of writing—three months—the improvement had persisted in one case. The details of cases are given, but they would take up too much space for this report.

This remedy has recently been employed in twenty cases by Dr. Spencer, of St. Louis, who was careful to select those cases which presented the most favorable conditions for its administration in the absence of any mere mechanical cause upon which the entotic noise could rest, and he reports the result to have

been wholly negative beyond a mere temporary impression.

Prof. Moos, of Heidelberg, enjoyed an unusual opportunity to study the histological changes that occur in the Eustachian tube from chronic catarrh, in a patient aged 41, who had suffered from catarrh of the ear since his ninth year.

Prof. Moos had this patient under his own treatment for ten years. For a stenosis of the tubæ Eustachii in consequence of this catarrh, Professor Moos undertook to open and dilate the tubes by means of catgut bougies. In this he was quite successful.

The patient died later, of some pulmonary disease, at the age of 49, having in the meantime become worse than ever as to his hearing, etc.

In a lengthy account of the condition in which he found the two tubæ Eustachii in this case, he first draws attention to the relative size of the osteum pharyngeum tubæ in its normal condition. It is seldom the same on both sides of the same individual. In the adult the sagittal diameter varies from 4.5 to 6.5 millimetres; the transverse diameter, from 4 to 5 millimetres. The depth of the cone is 5 to 6.5 millimetres.

He emphasizes the fact that when the ostea pharyngeum tubæ are remarkably small in the adult, in the absence of other causes, we may feel tolerably sure of the existence of a long-continued catarrhal disease of the mucous membrane of the Eustachian tubes.

As to other changes, the folds in the mucous membrane upon the floor of the tubæ were notably absent.

The folds in the mucous membrane opposite the floor of the tube below the curving of the medial into the lateral cartilages were totally wanting on both sides.

The conclusion is drawn, therefore, that one of the results of chronic catarrh of the Eustachian tube is a smoothing out of the folds of mucous membrane.

This favors a more intimate contiguity of the opposite surfaces of the tube than in the normal condition. As is shown further on, the smoothing of the folds is the result of increased activity of the muscles by whose contraction the canal is opened—the abductor tubæ and the salpingo-pharyngeus muscles. The mucous membrane, in cases of chronic catarrh, is often partially or wholly absent; owing perhaps to the increased frailty of the epithelial cells, his specimens were of this kind.

The submucosa, transformed by catarrh, presents a hyperplasia of the connective tissue; the fibrin layer is thicker and broader than normal.

The muciparous glands are atrophied and absorbed. Professor Moos believes that the tube, which is closed during rest, is dilated partially through the immediate or remote influences of musc. abductor tubæ, partially by the action of the superior and middle constrictors of the pharynx, by means of the facia salpingo-pharyngea, which is in simultaneous action with the pharyngeal muscles. If this view is correct, it might reasonably be expected that a hyperplasia of the organs concerned in dilating a tube where there has been disease of its canal for a series of years, with continued and increasing obstruction to the dilatation, would occur. In fact, his surmises proved to be correct. The facia salpingo-pharyngea was thoroughly hypertrophied.

The hyperplasia was characterized by a very dense quality of the connective-tissue bundles, partly by a broad ligamentous expansion of certain tendinous prolongations. This was particularly noticeable in parts where the prolongations were inserted into the cartilaginous island on one side, and the submucosa of the floor of the tube on the other. The hyperplasia of the perichondrium led to an increased development of the intercellular substance of the cartilage, and in some portions of the tube the bands of connective tissue had penetrated between muscular bundles of the musculus levator, and gave the appearance of insular isolation of these portions. Other strikingly similar changes were found, but sufficient has been here gleaned from the article to indicate the very interesting character of these researches as a whole.

Professor Moos concludes that this state of things is the result of long-continued catarrh and of the increased labor demanded of the muscles of the part. In view of the fact that, in the normal condition of these parts, muscular fibre is never found in this situation, we may suppose a new formation of muscular fibre, a true (muscular) hypertrophy, to have occurred, provided, always, that we do not chance to meet a very rare individual peculiarity in the exceptional insertion of the muscle—a thing which nobody has as yet noted.

The changes in the cartilage were not of sufficient importance to be entitled to notice here.

Dr. L. Brewer Hall reports two cases of aspergillus in the ear. After some comments upon this subject he arrives at the conclusion that aspergillus glaucus in the auditory canal is rare in this climate; that the aspergillus is not the cause of the disease, but in order of time is a secondary phenomenon. The simplest effective treatment is to keep the meatus free and dry.

Dr. Roosa has been at the pains to observe the disproportion between the power of hearing the tick of a watch and the human voice in thirty-six cases. No cases were recorded where the watch could not be heard at all, or where it could be heard on one side only. Dr. Roosa's article is of greater interest than his apologetic remark at the openiug would indicate. He says: "I am aware of the comparatively slight importance of the subject, but I hope the few facts shown may, at least, turn the attention of some observers, so that a careful working up of the questions involved may finally accomplish something for otological science."

Dr. Roosa refers to the importance of our possessing a good test or standard for testing the function of the hearing organ. We have, however, as yet been unable to acquire a satisfactory means.

It is to be regretted that the entire article cannot be given here. One deduction from the article is, that those cases are the least amenable to treatment in which the watch is heard relatively better than the voice. The conclusion of the article is devoted to the subject of hearing better in the midst of a noise.

Dr. Blake, in a paper published in 1875 (*Archiv. Opth. et Otology*), reported a case of movable cicatrix of the membrana tympani. The character of the movements of the cicatrix, the conditions under which these movements occurred, and the results of the tests to which these conditions were subjected, proving conclusively varying degrees of intra-tympanic pressure during natural respiration and during phonation, which could be explained only by assuming a persistent potency of the Eustachian tube.

In the *Archives of Oph. and Otology* for August, 1876, Dr. Blake presents a second case confirmatory of the one mentioned above.

A new work upon the ear, by Dr. S. Burnett, of Washington, has appeared during the past year. Its title is, "The Ear: Its Anatomy, Physiology, and Diseases."

It is divided into two parts, the first being devoted

to Anatomy and Physiology, the second to Diseases and Treatment.

The illustrations of the book are well selected and are not too profuse.

The author adopts the metric system of measurements in his descriptions, anatomical and otherwise.

Dr. Burnett's well-known reputation as a scientific student would lead us to expect a very full account of the latest researches in otology; and in perusing the pages of his book one is not disappointed. Every department is thoroughly worked up.

We have the benefit of his thorough sifting of the latest literature upon the subject, in addition to his own mature observations.

The first part deserves special mention for its lucidity and thoroughness. The chapter on "Instruments and Methods of Employment" is a complete statement of the subject. That on sound-hearing and tests of the latter is carefully written.

The author recommends the use of the nasal douche for irrigating the naso-pharynx in acute and chronic affections of the middle ear. He thinks if every precaution laid down by him is resorted to, the operation can always be conducted with safety to the patient.

As the book will soon be in the hands of all, it is needless now to dwell upon a subject upon which there is such a diversity of opinion.

It is carefully prepared throughout, and is a valuable addition to the few good books written by otologists of late years.

12 W. 35TH ST.

THREE CASES OF SPINAL DISEASE IN CHILDREN,

TREATED BY SUSPENSION WITH PLASTER-OF-PARIS JACKET, AT ST. JOHN'S RIVERSIDE HOSPITAL, YONKERS, N. Y.

By FRANK S. GRANT, M.D.,

LATE VISITING SURGEON.

Case I.—Maggie Cameron, aged 4 years, born in U. S., admitted April 4, 1877. A pale-skinned, blue-eyed little girl, with scrofulous scars upon her neck and body. Her mother states that when three years old the child had a fall, which was subsequently followed by "a lump on the back," and inability to go around as before.

On examination there was discovered an angular curvature of the spine, involving the last three or four dorsal vertebræ. Pressure over this prominence gave no pain. In standing, the child would support herself by leaning forward, the hands grasping the thighs. In this attitude she could walk about the room. She had a good appetite, slept well, and played all day.

I explained the apparatus of Dr. Sayre to some ladies interested in the hospital, and they entered into the project with laudable zeal, giving me the means to purchase pulleys, etc. In the meantime I visited Dr. Sayre, at his office, and by his kind invitation spent the morning watching him put up several cases. On April 6th I put my little patient in the swing and applied the jacket. When the plaster had set she was allowed to walk about the ward, which she did with perfect ease, walking erect and unsupported. She wore the jacket until May 6th, when a fresh one was applied. The deformity had decreased visibly, and the patient had gained flesh during the month.

She continued perfectly well until June 1st, when, after playing all the morning in the sun, she complained to the nurse of feeling tired, and laid down on a settee, where she fell asleep. On being removed to the ward in the early part of the afternoon she was very peevish and fretful, and complained of pain in the head. On my visit next day I found her in bed, with flushed cheeks, closed eyelids, and very restless; the nurse said the patient had moaned all night. I removed the jacket, had the child washed and placed apart from the other children. Temp. at this time was 100°; pulse, 110.

June 3d.—No better; passed a restless night, moaning and tossing about in bed.

June 4th.—The same; will take but little food; ordered potass. bromid., gr. ij. every three hours; temp. 100°; pulse, 105.

The patient continued in this way, taking no nourishment, and died quietly June 10th, exhausted. No post-mortem was allowed. The symptoms in this case were undoubtedly those of meningitis, subacute in character, and progressing to a fatal end.

Case II.—Mamie Burns, aged 4 years, born in U. S., admitted to hospital April 30, 1877. Mother says the child fell down-stairs when two years old, and injured its spine.

On inspection I found disease of the three last cervical and the two last lumbar vertebræ; the deformity in the former was well marked, in the latter to a less degree.

The child's head appeared as if set below the shoulders, and rolled helplessly from side to side, when unsupported. The attitude of the patient was characteristic. She sat in her mother's lap, propping up and steadying her head with both hands under the chin, the elbows resting on the thighs. Upon examination of the chest I found emphysema in both lungs, with loud, asthmatic breathing. The patient was poorly nourished, thinly clad, and very dirty.

May 1st.—Put patient up in jacket with "jury mast." When removing the child from the swing to the bed I was alarmed by seeing her turn blue in the face and gasp for breath, with both hands tearing at the throat. I quickly replaced her in the swing, when as quickly the dyspnœa disappeared and the child breathed easily. Feeling assured that the jacket was not applied too tightly, for the flat of my hand could pass between the chest-wall and the dressing, I tried again to place her in bed after quieting her fears. There was no recurrence of the dyspnœa. The head-gear was put on next day, and the patient went about perfectly happy.

On June 5th the mother took her child home, but promised to report at the end of one week.

I heard nothing from her until June 25th, when she came with the child to the dispensary.

The patient had fallen away greatly, and the loud wheezing (which had become modified after wearing the jacket a few days) had returned. Both apparatus and child were in a filthy state. The jacket was removed, the patient washed, and again placed in the children's ward. I found, on examining the condition of the lungs, feeble respiratory sounds, coarse mucous and subcrepitant râles. Prescribed oil-silk covering to chest and cod-liver oil.

July 1st.—Condition so much improved that I reapplied the jacket, which was followed as before by improvement in the respirations. She kept fairly well through the months of July and August, running about the ward every day, and eating and sleeping well.

On September 2d I noticed she did not seem so

bright, and her breathing had grown noisy again. I had her kept quiet for a day, when the breathing became more natural. On September 5th her respiration again grew noisy, and I removed the jacket. There was no improvement of either spinal deformities.

Sept. 6th.—Seemed bright and happy, but with very feeble and wheezing respirations.

Sept. 7th.—At 11 A.M. she was seized with a paroxysm of choking; became rapidly cyanotic, and, after a few gasping respirations, fell back on the pillow dead. So sudden and unexpected was the attack that the nurse, who was in the next room, only reached her as she fell back on the pillow.

CASE III.—Lena Thompson, aged 7 years, born in U. S., admitted to hospital, 1877. When about four years of age she had her right leg amputated above the knee for disease in that joint. She was sent to the hospital, more for a home than for any apparent disease, but while treating the other spinal cases, my attention was called to this girl's spine.

I found angular curvature, with some lateral curvature involving the last dorsal and first lumbar vertebræ. In other respects she was in excellent health. She had worn at one time a form of spinal support, but without benefit, and it was cast aside. Shortly after her admission I placed her in the swing and applied the jacket.

The lateral curvature almost entirely disappeared while in the swing. She wore the jacket for one month with *great* comfort. I then put on a fresh one.

The nurse was instructed how to swing the patient every other day in the apparatus, from 15 to 20 minutes, my object being to gradually overcome the deformity—both lateral and angular—and follow it up with fresh jackets. Here, I regret to say, I shall be obliged to end the history of Case III., and for reasons which I shall give in my comments.

Comments.—The unfortunate ending of my first two cases has not discouraged me as regards this particular method of treatment, but has convinced me that it cannot be adapted to *all* cases indiscriminately.

Patient No. 1 certainly died of subacute meningitis, but not as a *result* of spinal irritation from the plaster-of-paris jacket, as had been inferred by some physicians. She had no unfavorable symptoms until after playing in the hot sun all the morning; she was a scrofulous child, and a poor case for test treatment.

Patient No. 2 died from a suffocative catarrh of the lungs, which may have been hastened by lack of sufficient chest expansion in consequence of the jacket, and yet the character of her respirations had improved a few days after its application.

Patient No. 3 was doing very well, and would have been a good case for test treatment had it not been interfered with. In the month of September, the governors of the hospital declared the treatment of spinal diseases by the method of suspension and plaster-of-paris jacket a failure, asserting that it had already killed two children, and forbidding its further use in the institution. To give emphasis to their opposition, the President of the Board came to the hospital, and by his own authority had the jacket removed from Case III., stating that he had come in time to save the child's life! In consequence of this act, I notified the hospital staff and retired from my service. This was immediately looked upon by the governors as a resignation of my office, and accepted as such.

YONKERS, N. Y.

SOME METHODS OF APPLICATION TO THE UTERUS FOR CHRONIC DISEASE.*

BY FREDERICK D. LENTE, M.D.,

FORMERLY ONE OF THE PHYSICIANS OF THE N. Y. STATE WOMAN'S HOSPITAL.

SINCE the danger of making applications to the interior of the uterus by means of *injections* has been demonstrated, and therefore abandoned, the difficulty of efficiently treating the endometrium without previous dilatation of the cervical canal and os internum has been generally acknowledged by gynæcologists, who have devised various contrivances of greater or less utility for this purpose.

The description of one of these instruments by Dr. Turner, of Brooklyn, in a recent number of THE MEDICAL RECORD, and his remark that he searched Tiemann's catalogue and the instrument stores in vain for an efficient instrument for making liquid applications, have led me to again direct the attention of the profession to an applicator devised by me some years ago, and which, according to the testimony of the manufacturers, has been quite extensively used. Dr. Turner's instrument only allows him to apply a very limited quantity of the liquid, or as much as will saturate a bit of cotton wrapped around a whalebone probe, which is then sheathed in a canula. Even this small quantity is more or less diluted with the secretion always present in the uterus, in case of disease, and fails to have the positive effect which we would have a right to expect from the potency of the agent employed. Moreover, such an instrument must necessarily be of considerable size, must, in many cases, require more or less force in its application, and give rise to some irritation of the sensitive parts. The principal objection, indeed, to most of the instruments designed for this purpose is their comparatively large size, and in the majority of them —not in Turner's, however—the want of any provision against the squeezing out of most of the fluid with which the cotton is saturated, as it passes through the canal, and the subsequent dilution and neutralization of what is left by the tenacious mucus which it there always encounters. To dilate the canal previous to each application is to complicate the treatment, and in case it is effected by *tents*, to add very materially to the discomfort of the patient, and the expense, to say nothing of the occasional danger. The instrument which I described some years since is simply a small silver tube, resembling closely a male catheter, but with mere slits instead of eyes, to retard as much as possible the exit of the fluid; and furnished with an olivary enlargement an inch and a half from its extremity, to indicate when the latter has reached the os internum, in order that the operator may strictly

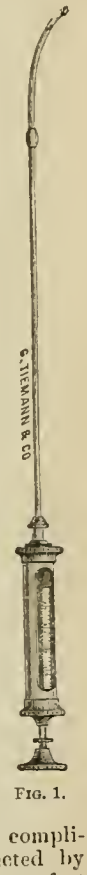

FIG. 1.

* I find that the instrument-makers have manufactured my applicator of *hard rubber* instead of glass and silver, and have called it *Buttles'* applicator: at least it goes under that name. The modification is certainly not an improvement, as some of the advantages, which I here claim, do not attach to it. For instance, its flexibility and small size, thus making dilatation or dragging down of the cervix (in order to straighten it) unnecessary; though hard rubber may also have its advantages. A few years ago an instrument-maker used glass in place of hard rubber in making my *ointment syringe*, and called the instrument Hutchinson's, I think. I suppose, by way of making amends, they now substitute hard rubber for glass, thus "making things square."

F. D. L.

limit his application to the *canal;* or, on the other hand, to be certain that he has passed fully into the body of the uterus when this mark has disappeared in the canal. The calibre of the tube should be very small, and the walls sufficiently thick to obviate all danger of breaking from long use. The last three inches of the tube, including the bulb, should be of pure silver; the remainder must be of stiffer material or of larger size, in order not to bend too easily. To this tube is screwed an ordinary hypodermic syringe.

Mode of Application.—The liquid, first poured into a little cup or a teaspoon, is drawn into the syringe, and the latter screwed on the tube. It is then forced slowly into the latter until all bubbles of air have been expelled; the end is then wiped dry, and a very small quantity of the finest cotton-wool is twisted uniformly around the end beyond the bulb. (The advantage of not allowing any of the liquid to moisten the cotton is that the cervical canal is not irritated by it, and does not contract upon the instrument, thus rendering the operation more troublesome, and, in the case of a contracted and irritable canal, sometimes impossible). Having first passed into the uterus a probe terminated by an olivary bulb *somewhat larger* than the applicator with the cotton added, to insure that the os internum will *readily* admit the latter, and also to get the exact *direction* of the canal, the applicator is bent so as to correspond with this, and passed in. The cotton is then saturated by forcing out a few drops of the liquid, and wiped gently over the uterus, then a fresh supply is gradually added until it is seen to pass out of the external os by the side of the tube, as is readily done in the case of iodine, carbolic acid, etc. This, however, is not necessary, as we know that ten or twelve drops are sufficient for most cases. In withdrawing it is proper, when the *canal* is affected, to wipe the cotton thoroughly over all parts of it, and sometimes to supply fresh liquid from the syringe. In this way the most powerful drugs may be applied with the utmost precision, as we know, by previous trial, with a certain amount of cotton, just how many drops will saturate it, and we can thus limit the application strictly to the body of the uterus, in case the canal is unaffected, or the application unsuitable for it.

Messrs. Tiemann & Co. have figured in their valuable catalogue my "ointment syringe" for introducing with precision various ointments into the uterus (which Dr. Thomas also describes in his work), and have added a long tube which may replace the ointment tube, and the instrument may thus be used for both liquids and ointments, if the avoidance of *expense* is an object; but it is more convenient to have the two instruments, as the addition of the long tube to the ointment syringe makes it rather awkward. Their modification of the syringe to adapt it to liquids, since they have had to increase the length and diminish the diameter of the barrel, renders it less convenient for *ointments* than my original design, as it is necessary, in order to charge it, to have a very soft, almost semi-fluid ointment. Vaseline will be found probably the best excipient for any desired application, and may be rendered semi-fluid, if necessary, in cold weather. Calomel, oxide of zinc, etc., are very useful in this manner. Dr. Fordyce Barker has successfully used these applications, as he informed me, and had contrived an instrument previous to mine, but of an entirely different construction.

The effect of these applications, even in the most chronic cases, when made in this precise manner, is sometimes very striking, and the duration of treatment much shorter than when used with the ordinary applicators. No method, however, is so prompt and effectual as the application of the solid *nitrate of silver* by means of the instrument which will be found described in Dr. Thomas's work, and which is here represented by Fig. 2. The effect on the prominent symptoms of some severe forms of chronic disease is

Fig. 2.

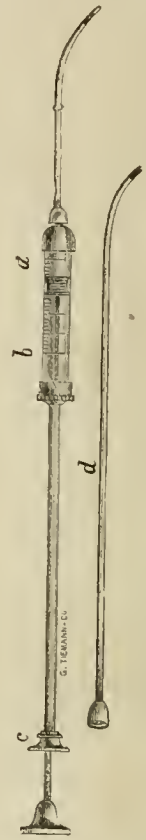

Fig. 3.

frequently astonishing. Among the poorer classes it is particularly applicable, since the treatment is thereby much curtailed and the expense lessened. But there is a drawback to this method in its liability to induce induration of the tissues, particularly of the cervical canal, if not judiciously used or if too long continued. But this is a minor evil compared to the miserable life, mental as well as physical, which the subjects of some of these forms of chronic disease endure, and which other milder applications fail to influence at all, or only for a brief period, and after a duration of months or years, if the patient does not get tired out and disheartened before the lapse of that time. As a general rule, however, in such cases, the application may be confined to the corporeal endometrium, to which this objection does not so strongly apply. The *pain* following the application of the nitrate, which should always be wiped thoroughly over the whole lining membrane, is such as to arouse fears of grave inflammation in the minds of those who are not familiar with its use. But this, when it occurs, can be almost immediately arrested by a hypodermic injection of morphia, or less promptly, but no less efficiently, by rectal injections of McMunn's elixir, when the stomach rebels against the morphia. I am not aware that any serious effects have ever occurred from its use, nor is it necessary to confine the patient to the recumbent posture longer than a few hours, while some of the poorer patients have gone about their

business at once, from necessity, without any injury. The symptoms scarcely ever produce any rise in the pulse or temperature. It may be well to state that the manner of charging the probe is to melt the nitrate in the platinum cup (a small, thin porcelain one will answer, but wastes the nitrate), then, after having well cleaned the bulb of the probe, to dip it in and out of the nitrate until a sufficient coating for the application has adhered to it. It then clings so closely that a blow from a hard instrument is required to detach it. This method of applying the nitrate is not applicable merely to the uterus; it may be and has been used for granulations, etc., at the bottom of the *meatus auditorius*, for sinuses, for the nasal cavity, the rectum, etc. The ointment syringe may also be used to great advantage in making applications to the nasal cavities, to sinuses, and to the prostatic portion of the urethra, instead of Lallemand's instrument, by means of a urethral tube which accompanies the syringe.

The liquid applicator is here represented by Fig. 1; the porte-caustique, with the platinum cup, by Fig. 2, and the ointment syringe by Fig. 3.

PALATKA, FLORIDA, November 1, 1877.

Progress of Medical Science.

DIFFERENTIAL INDICATIONS FOR THE USE OF THE FARADIC AND GALVANIC CURRENTS.—In a pamphlet reprinted from the *New York Medical Journal*, Dr. A. D. Rockwell discusses the indications which are to guide us in the use of these two electrical currents. He considers his subject under three heads: 1st, those diseases, or symptoms of diseases, which seem to demand the faradic current; 2d, those that call for the galvanic; and 3d, those in which both are frequently and interchangeably indicated. Asthenopia, a symptom depending on an absolute or relative deficiency of energy in the muscles of accommodation, or of the internal recti, and accompanied by hyperæsthesia of the retina and of the ciliary nerves, is about the only disease in which faradization is invariably superior to galvanization. The galvanic current is uniformly superior to the faradic in spinal irritation, certain sequelæ of cerebro-spinal meningitis, and in most of the skin affections in which electricity has been found of service. Of the third class, paralysis is the most prominent example. An exalted, or even a very slightly diminished electro-muscular contractility demands faradization; but a great diminution of this contractility indicates galvanization. Of the *modus operandi*, he accepts the explanation offered by Onimus, who claimed the duration of the current to be the important factor in the production of muscular contractions. The closing of the faradic current is only 0.0114″ in duration, while that of the galvanic is 0.05″; hence, where the reaction of the diseased muscles is slow, the slower current is indicated. When used for the relief of pain, proper discrimination is difficult. True neuralgia is most successfully treated by galvanism, while hysterical neuralgia yields more readily to faradism. General faradization is highly recommended as a constitutional tonic.

EXTRA-UTERINE PREGNANCY: GASTROTOMY.—M. Rousseau, of Epernay, reports a case of extra-uterine pregnancy, in which gastrotomy was performed five months after the death of the fœtus, and fourteen months after the commencement of the pregnancy. In order to produce adhesions and prevent opening into the peritoneal cavity, the actual cautery was used. A knife-shaped instrument was heated to a white heat, and with it the anterior wall of the abdomen and the placenta, which was attached to it, were gradually divided; six sittings, at intervals of five or six days, were required for this purpose. After the sixth sitting the patient's condition was such as to render longer delay inadvisable, and the remaining portion of the placenta, which was about two-fifths of an inch thick, was divided with a bistoury. A little black blood escaped when the placenta was cut. The head could now be felt, and as it seemed large, craniotomy was performed and the bones of the cranium removed piecemeal. The entire fœtus was then taken away without difficulty. Without the brain, and after being two days in alcohol, it weighed over six and a half pounds. The placenta was firmly attached to the abdominal wall, and bled on puncture. For fear of hemorrhage and of peritonitis, no attempt was made to remove it or the membranes. The patient did well immediately after the operation, but a few days afterwards was seized with a phlebitis, from which, however, she recovered speedily. There was no peritonitis at any time. The placenta did not slough out, but gradually diminished in size, and became involved in the cicatrix. Ten weeks after the operation the patient left the hospital, with a fistulous opening in the abdomen, from which a small quantity of thick pus escaped. This opening remained for several years, and during this period a tumor formed by the placenta and membranes could be felt in the abdomen. M. Rousseau claims that this case proves that the placenta and membranes can be left without fear in the abdominal cavity after gastrotomy, provided they are still living and attached. He thinks that the adoption of this practice as a rule will diminish greatly the unfavorable chances of the operation. In this case the cauterizations were not, as it turned out, necessary to prevent opening into the abdominal cavity, since the attachment of the placenta to the anterior wall of the abdomen removed all danger of that. They proved very useful, however, in preventing hemorrhage from the living and vascular placenta.—*Union Méd. et Scient. du Nord-Est.*, Sept. 30, 1877.

INTRA-VENOUS INJECTIONS OF AMMONIA IN A CASE OF COLLAPSE.—Mr. Fitzgerald, of Melbourne, reports a case in which he employed intra-venous injections of ammonia with success, at a time when death was imminent from collapse. The patient had suffered for a long time from profuse suppuration. When first seen by Mr. Fitzgerald he was almost dead; he had no pulse at the wrist, and his respiration was imperceptible. Thirty drops of a solution of equal parts of *liquor ammoniæ fortior* and water were at once injected into a vein. The injection was followed by violent convulsions, but these soon passed off, and the patient was able to sit up in bed and talk rationally. These good effects persisted for eight hours, but the signs of collapse then reappeared. A second injection was practised, but the greater quantity of it passed into the cellular tissue, and no marked effect was produced. A third injection was more successful. The convulsive movements were more violent than after the first operation, but the effects were more satisfactory, for the alarming symptoms did not again return. The patient subsequently recovered completely. The ammonia that escaped into the cellular tissue produced a large eschar. With a little care this unpleasant result might have been avoided. It is thought that the intra-venous injections of ammonia deserve to be tried in other cases of collapse, and especially in cases of impending death from chloroform poisoning.—*Journal de Méd. etc.*, August, 1877.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE LYING-IN HOSPITAL AT WASHINGTON.

If the criticism on the management of the Columbia Hospital at Washington, by a citizen of that city, reprinted in pamphlet form from the Louisville *Medical Journal*, is correct in its material allegations, it is just possible that political hospitals are as corrupt as other political combinations proverbially are. The Woman's Hospital Association of Washington was incorporated by special act of Congress in June, 1866, on the ground, if our recollection rightly serves us, that it was highly improper that the capital of a great nation should not have a lying-in asylum of its own. Possibly that ground was not urged in exact terms, but merely intimated as one of the ulterior benefits of such an institution; for lobbyists as well as politicians are proverbially inexact in stating their real reasons for things. The project was, it appears, the happy conception of one Dr. J. Harry Thompson, who engineered the bill through Congress, and until September last was the surgical factotum of the institution, at a liberal salary and with a flexible board of directors, one of whom was General Orville E. Babcock. Until the fall of 1875, the doctor, now in Europe for his health, was in control of the funds of the institution as well as of its surgical instruments; and now arises the rather impertinent inquiry as to the administration of the $227,000 appropriated to the hospital by the government during the last ten years.

The writer of the pamphlet in question brings to bear certain important allegations respecting the internal administration of the hospital, which can only be explained to a committee by the managing surgeon, such as that, although the institution was founded for the treatment of diseases peculiar to women, paying cases of consumption, malarial, typhoid, and remittent fevers have been admitted to its wards, to the subversion of its proper function and of the proper hygienic conditions of a lying-in asylum. Again, although legally defined as an asylum in which those unable to pay therefor should be furnished gratuitously with board, lodgings, and medicine, and although the appropriations for that purpose have been large, the inmates have consisted mainly of patients paying from six to ten dollars a week for such benevolence. During the year 1875, for instance, Congress appropriated $32,500, exclusive of the receipts from pay patients, making in all an amount of more than $35,000 under the control of Dr. J. Harry Thompson. To descend to the dull detail of figures, the hospital managers throughout the country have the statistical fact that it takes $1,187 (a little over three dollars a day) to support a patient for one year in a lying-in asylum, whereas one dollar per day is the average cost per patient to the government in the army hospitals of the United States. It is, perhaps, a little impertinent to ask the question; but, if sex makes such an extraordinary difference in the cost of maintaining a patient, the fact should be revealed to the medical world as one of the most important recent inductions of science. The medical profession in Washington, unable to appreciate the difference in sex at its proper value, caused a bill to be introduced in 1875, that limited the expenditure per patient to one dollar a day; and, as it became whispered about that his management was extravagant, the Board of Directors was compelled by pressure of public opinion to curtail Dr. Thompson's discretion a little, although he was still retained at his former salary. They accordingly elected an advisory and consulting board of physicians and surgeons from the medical men of the city, consisting of eight members, who, as counsellors, were required to visit the hospital once a week, and to report in writing the condition of the patients and of the building. But this board, unfortunately for the interests of the combination, reported too freely altogether, even carrying criticism so far as to submit certain recommendations of reform in writing to the Board of Directors, one of which was the appointment, after a competitive examination by a medical board, of a resident physician. Another sensible and important suggestion was to abolish the office of surgeon, and transfer his duties to a medical staff. To this eminently proper recommendation, the directors ludicrously rejoined that the purpose of the hospital was to treat special diseases and accidents, calling for special training and skill, and that it would, therefore, in their opinion, prove disastrous to its best interests to adopt the views of the advisory board. The absurdity of this decision (necessary to retain Dr. Thompson in office) can only be appreciated by calling to mind that that which the advisory staff recommended was really the adoption of a system that experience has everywhere justified, and one which is in successful operation in the

hospitals throughout the country, namely—the transfer of the medical management of the patients to a corps of physicians and surgeons, in lieu of entrusting them to a single person, however competent. Of course, the Board of Advisory and Consulting Physicians and Surgeons, having been thus pointedly snubbed, resigned *en masse*.

It is to be hoped, however, that the matter will not end here. No one acquainted with the history of the hospital, from its first foundation until the present, can doubt the fact that the institution has been managed in the interest of one man. That such should be the case in the capital of the country supplied by medical men of first-class talent, who would be willing to give services which were really valuable, for nothing, is almost past belief. The continued existence of the present board of directors is an insult to the profession of the country. It is time that this political ring was broken, and the hospital placed in the hands of those who can manage it properly and give it the best possible chance for real usefulness, not only to the public but to the profession.

HOW TO REMEDY DEFECTIVE VENTILATION IN SCHOOLS.

In a recent examination concerning the ventilation of our public schools the President of the School Board is represented as saying that if the doctors and sanitarians would attend to the condition of the tenement-houses they would be better employed than in looking after the health of the school children. The inference would seem to be that if the Health Board could sufficiently improve the health of the children in the tenement-houses they could better endure the unsanitary condition of the school-rooms. Possibly if the children were never born, there would be no need of any ventilation whatever. As far as the argument goes it may be sound, but to unthinking and unpracticable individuals it may seem slightly evasive. While it is an evidence of some progress for him to acknowledge that the schools are not ventilated as they should be, it is also an evidence of his ability to deal with the problem by the way in which he approaches it. It is to be hoped that the medical profession will be impressed with the great importance of this advice, coming as it does from such high authority. The only thing now necessary to know is, what must be done with those children who do not live in tenement-houses and who attend the schools. The answer apparently suggests itself.

FRAUDS IN LIFE INSURANCE.

The conviction of two presidents of life insurance companies for perjury is a promising offset to the recent reports concerning frauds in life insurance companies. Whenever any attempts have been made to examine the affairs of life insurance companies, the public have been made to believe that it was merely for the purpose of levying black mail, of interfering with individual interests and hindering legitimate enterprise. For such apparent reasons the life insurance men have been always more or less active in opposing every legislative measure that, to ordinary people, might appear to be fair play to the insured. The developments in the recent trial throw a very strong light on such intentions, as the one who has been found guilty of the grossest kind of mismanagement was the person who was most active in preventing investigations.

BABY SHOWS AND CONTAGIOUS DISEASES.

The report reaches us that one of the little ones who received the prize at the recent baby show has died of scarlet fever. Under ordinary circumstances the mere fact of a death from such a disease in a child of the age of the one in question is not extraordinary, but as one of the episodes of the recent baby show it has a certain significance. Whether the child took the disease at the show or not we are not prepared to say, but the probabilities are as much in that direction as in any other. Certain it is that the chances are increased in proportion to the number of children who were assembled together. How many other deaths from scarlet fever, or any other contagious disease, may occur in the other babies present on that occasion we shall, perhaps, never know, as the only reason why the information was furnished concerning this one was the necessity of completing the history of one of the prizes. If, as we hope, the case in question may be an isolated one, it is more a matter of good fortune than of deserved immunity. As baby shows are getting in the fashion, the attention of parents who believe they have prize children should be directed to the danger of such exhibitions. Not only may contagious diseases be propagated by the show babies, but by the outsiders who come to see them, to handle them, and, worst of all, to kiss them. Who can tell how many of these admiring spectators have come fresh from cases of measles, scarlet fever, or diphtheria, or how many children just convalescent from such diseases may be brought there by their nurses, because the latter wish to enjoy the apparent novelty of the occasion? But notwithstanding all this, we have no doubt that the baby shows will be popular all over the country.

THE ANTHROPOLOGICAL COLLECTION AT THE PARIS EXPOSITION.

In the coming International Exposition at Paris there will be a section devoted to the study of the anthropological sciences. The opportunity for the collection of all matters bearing upon the present and prehistoric man will in all probability be unequalled. The gentlemen who will have charge of this department are anxious to secure the aid of ethnologists from all sections, but have extended a special invitation to gentlemen in this country who are interested

in the subject. It is by the grouping together of specimens from different portions of the globe that the missing links which now exist in our history of man can possibly be supplied. At all events, a concerted action on the part of the large number of physicians in this country who have studied the subject more or less thoroughly, will doubtless aid in settling many disputed points. America has been very fruitful in anthropological specimens, and scores of physicians have distinguished themselves in their study and interpretation. There is no doubt that many will be able to send to Paris contributions which, filling up some of the gaps in the history of America, will equal in importance the discoveries of Boucher-de-Perthes, Lyell, De Mortellet, and other builders of the prehistoric ages.

Necessarily the contributions must extend over a wide range of subjects. Not only must crania and bones be furnished, but mummies in whole or in part, instruments and methods of teaching among the primitive inhabitants, relics, photographs, pictures, drawings, sculptures, medals of prehistoric or ethnographic monuments, geographic charts and tableaux, books, periodicals and pamphlets concerning the ethnology, language, traditions, medical geography, etc., of the ancient and modern Americans.

The section will be under the charge of De Quatrefage, President of the Anthropological Society of Paris, Dr. Paul Broca, Vice-President, and many others. The importance of a hearty co-operation in the enterprise must be evident to all interested, and we accordingly invite such to place themselves in early communication with the American Educational Commissioner who shall be appointed to represent this and kindred departments at the Exposition.

THE CLOSE OF VOLUME XII.

With the close of the present volume we are reminded that some expression of thanks is due to our contributors and the members of our staff for the valuable aid which they have given us during the past year. Our contributors are duly mentioned by name in another place, and will accept collectively our obligations. Dr. Wesley M. Carpenter has, as usual, given us invaluable assistance by his admirable and accurate reports of lectures and transactions of societies. In these departments, also, we wish to acknowledge the good services of Drs. B. Brynberg Porter, of this city, Dr. S. M. Miller, of Philadelphia, and Dr. Norman Bridge, of Chicago. Drs. J. A. and Geo. P. McCreery, of this city, have translated and abstracted the items of progress of medical science from our German and French exchanges, and Dr. George R. Cutter, also of this city, has made the translations from our Scandinavian, Italian, Spanish, Holland, Russian, and Portuguese exchanges.

With the coming volume we shall endeavor, with the increased space at our command, to make such improvements in the journal as increased experience in its management may suggest, and a more extended knowledge of the wishes of its patrons may demand.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Dec. 16 to Dec. 22, 1877.

Baily, J. C., Major and Surgeon. Assigned to duty at the Presidio of San Francisco, as Post Surgeon. S. O. 158, Div. of the Pacific and Dept. of California, Dec. 12, 1877.

Bache, D., Major and Surgeon. Assigned to duty at the Benicia Arsenal, and as Attending Surgeon at Benicia Barracks, Cal. S. O. 158, C. S., Div. of the Pacific and Dept. of Cal.

Storrow, S. A., Major and Surgeon. Relieved from duty at the Presidio, and to comply with orders from Headqrs. of the Army. S. O. 158, C. S., Div. Pacific and Dept. of Cal.

Hartsuff, A., Major and Surgeon. Assigned to temporary duty at Fort Gratiot, Mich. S. O. 18, Dept. of the East, Dec. 13, 1877.

Woodhull, A. A., Major and Surgeon. Until further orders, in addition to his present duties, to attend the sick at Angel Island, Cal. S. O. 158, C. S., Div. Pacific, Dept. of Cal.

Waters, W. E., Capt. and Asst. Surgeon. To proceed to Fort Columbus, N. Y. H., settle his public business there, and, on completion thereof, report by letter to the Surgeon-General. S. O. 255, A. G. O., Dec. 15, 1877.

Brooke, Jno., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Newport Barracks, Ky. S. O. 199, Dept. of the South, Dec. 14, 1877.

Phillips, H. J., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and granted leave of absence for three months on Surgeon's certificate of disability, to take effect Jan. 1, 1878. S. O., 257, A. G. O., Dec. 18, 1877.

De Graw, C. S., Capt. and Asst. Surgeon. His resignation accepted by the President, to take effect Jan. 1, 1878. S. O. 257, A. G. O., Dec. 18, 1877.

Medical Items and News.

Contagious Diseases.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending December 22, 1877.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
Dec. 15.....	0	11	56	4	23	66	0
" 22.....	0	21	63	4	56	71	0

Lectures on Life Insurance.—Prof. William Detmold, M.D., will give his course on Medical Examinations in Life Insurance, at the College of Physicians and Surgeons, every Friday (during the college term) at 2 P.M., commencing January 4, 1878.

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